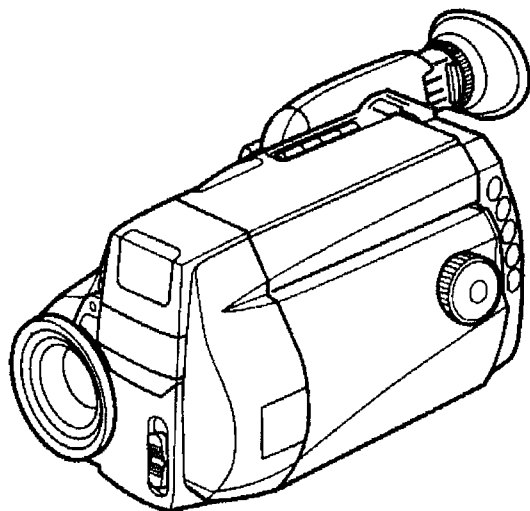


HITACHI

SERVICE MANUAL



TK

No.6906E

VM-E553LE/E555LE
VM-E558LE/E658LE
VM-H755LE/H855LE
VM-H955LE AC Adapter
VM-ACE5E

UH MECHANISM

■ **When Servicing the Mechanism:**

This camera/recorder uses a UH mechanism.
When servicing the UH mechanism, refer to the following service manuals:

Item	Manuals to be referred to
Disassembly	UH Mechanism (No. 6811E)
Mechanical Adjustment	Chapter 7 in this manual
Maintenance/ Inspection Procedure	UH mechanism (No. 6811E)
Exploded View	Chapter 4 in this manual

0216024/1026055



SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

8mm VIDEO CAMERA/RECORDER

March

1999

AV Consumer Products Division, Tokai

CAUTION

Lithium battery; danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.

When replacing the lithium battery it is important to use the same type and connect it correctly.

- WARNING:**
- Lithium batteries contain dangerous chemicals.
 - Handle and dispose of with great care.
 - Do not throw in a fire.
 - Do not short circuit it.
 - For disposal place in a plastic bag and put in waste bin.

CAUTION (COLOR LCD)

LCD display; the liquid crystal display (LCD) panel is made by highly precise technology.

More than 99.99% of its picture elements (pixels) are effective, but some (less than 0.01%) may appear as colored bright dots. This mode not indicate a fault as the LCD panel stretches the limits of current technology.

CAUTION (CRT EVF)

Be careful of the section painted in white on the electronic viewfinder circuit board as it generates a high voltage.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts have special safety-related characteristics. These are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for a higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual. Electrical components having such features are identified by marking with a  on the schematics and the parts list in this Service Manual. The use of a substitute replacement component which does not have the same safety characteristics as the HITACHI recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards. Product safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current HITACHI Service Manual. A subscription to, or additional copies for, HITACHI Service Manual may be obtained at a nominal charge from HITACHI SALES CORPORATION.

X-RAY RADIATION

The primary source of X-ray radiation in this viewfinder is the picture tube. The tube used in this viewfinder is specially constructed to limit X-ray radiation emission. For continued X-ray radiation protection, the replacement tube must be same type as the original, Hitachi approved one.

How to discriminate the "TYPE" identifications in the manual

The parts and circuits are identified by "TYPE" in this manual to discriminate the differences between models. The TYPE numbers are the same as the model numbers. The table below shows how to read the type identifications.

TYPE identification	Model name
TYPE 553	VM-E553LE
TYPE 555	VM-E555LE
TYPE 558	VM-E558LE
TYPE 658	VM-E658LE
TYPE 755	VM-H755LE
TYPE 855	VM-H855LE
TYPE 955	VM-H955LE

How to discriminate the "MODEL" identifications in electric circuit adjustment in the manual.

If the adjustment values (input data) vary depending on the model, they will be individually described using "MODEL" indications. The following shows the relationship between the "MODEL" indications and model

MODEL identification	Model name
MODEL EA	Not used
MODEL HA	Not used
MODEL EE	VM-E553LE VM-E555LE VM-E558LE
MODEL HE	VM-E658LE VM-H755LE VM-H855LE VM-H955LE

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SPECIFICATIONS**■ General**

Power requirements
Power consumption

7.2V DC

VM-E553LE/E555LE/E558LE:

3.5 W (when recording/LCD monitor OFF)

4.3 W (when recording/LCD monitor ON)

VM-E658LE:

3.5 W (when recording/LCD monitor OFF)

4.4 W (when recording/LCD monitor ON)

VM-H755LE/H855LE:

3.6 W (when recording/LCD monitor OFF)

4.6 W (when recording/LCD monitor ON)

VM-H955LE:

3.6 W (when recording/LCD monitor OFF)

4.7 W (when recording/LCD monitor ON)

Operating temperature

0°C to 40°C

Operating humidity

< 80%

Storage temperature

-20°C to 60°C

Dimensions

118.5 (W) × 102.5 (H) × 181 (D) mm

Weight

VM-E553LE/E555LE/E558LE/H755LE:

Approx. 850g (without battery pack and cassette)

VM-E658LE/H855LE/H955LE:

Approx. 880g (without battery pack and cassette)

■ Video Recorder Section

Format

8 mm

Record/playback system

Two video record/playback heads

Video signal

PAL colour & CCIR monochrome signals 625 lines

Tape speed

SP: 20.05 mm/sec.

Video output

1.0 Vp-p, 75 ohm

Audio output

-8 dBs, less than 1K ohm

Fast forward/rewind time

Approx. 6 minutes with P5-90 cassette

■ Camera Section

Scanning

625 lines/50 fields/25 frames

Required minimum illumination

VM-E553LE/E555LE:

0.3 lux

VM-E558LE/E658LE:

0.1 lux

VM-H755LE/H855LE/H955LE:

0.5 lux

Camera device

1/4" C.C.D

Lens

F1.6 - 3.8 (4 - 88 mm) 22:1 power zoom lens with
auto focus and auto iris functions

Lens diameter

46 mm

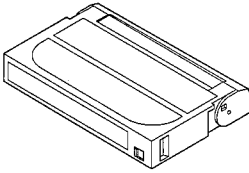
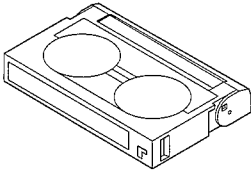
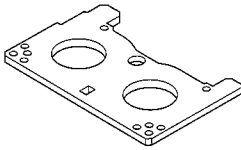
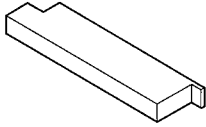
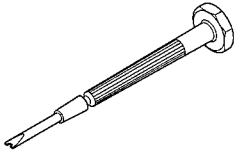
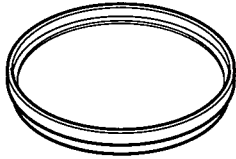
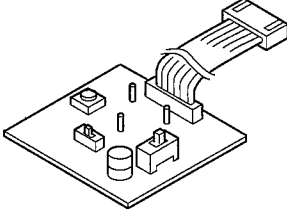
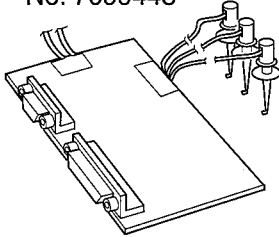
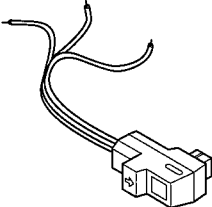
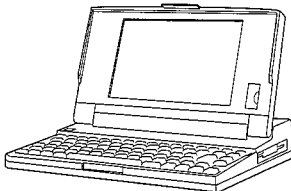
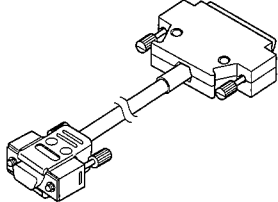
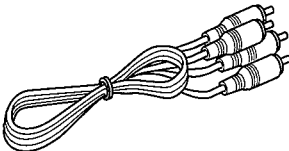
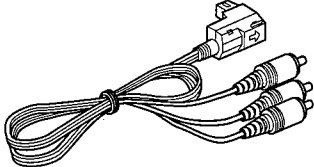
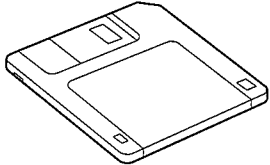
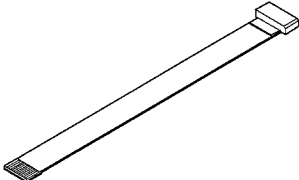
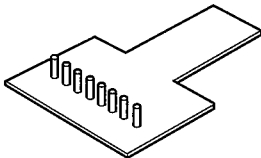
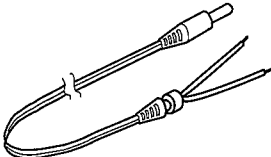
COMPARISON OF FEATURES

ITEM		VM-E645LE/E648LE VM-H845LE/H946LE	VM-E553LE/E555LE/E558LE/E658LE VM-H755LE/H855LE/H955LE
GENERAL	Power Requirements	7.2V DC	
	Power Consumption (When recording/LCD monitor ON)	4.4W [VM-E645LE/E648LE] 4.6W [VM-H845LE] 4.9W [VM-H946LE]	4.3W [VM-E553LE/E555LE/E558LE] 4.4W [VM-E658LE] 4.6W [VM-H755LE/H855LE] 4.7W [VM-H955LE]
	Dimensions (W × H × D mm)	118.5 × 102.5 × 181	
	Weight	Approx. 860g [VM-E645LE/E648LE/H845LE] Approx. 870g [VM-H946LE]	Approx. 850g [VM-E553LE/E555LE/E558LE/H755LE] Approx. 888g [VM-E658LE/H855LE/H955LE]
VIDEO	Format	8mm [VM-E645LE/E648LE] 8mm (Hi-8) [VM-H845LE/H946LE]	8mm [VM-E553LE/E555LE/E558LE/E658LE] 8mm (Hi-8) [VM-H755LE/H855LE/H955LE]
	Record/Playback System	Two video record/playback heads	
	Video Signal	PAL colour & CCIR monochrome signal 625 lines	
	Tape Speed	20.05mm/sec	
	F.F/Rew Time	Approx. 6 minutes with P5-90 cassette	
	Head Wheel	40 mm	
	Basic Chassis Type	UH	
CAMERA	Scanning	625 lines/50fields/25 frame	
	Required Minimum Illumination	0.5 lux	0.1 lux [VM-E558LE/E658LE] 0.3 lux [VM-E553LE/E555LE] 0.5 lux [VM-H755LE/H855LE/H955LE]
	Camera Device	1/4" C.C.D	
	Lens Diameter	46 mm	
	Zoom Ratio	16 : 1 (4.0 - 64.0mm)	22 : 1 (4.0 - 88.0mm)
	Aperture	F1.4 - 2.8	F1.6 - 3.8
	Zoom Speed	1 Speed	Adjustable speed
FEATURES	Electronic Viewfinder (EVF)	CRT (Black & White)	
	Electrical Zoom Function	Yes [× 240 (16 × 10 × INST. ZOOM)]	Yes [× 400 (22 × 12 × INST. ZOOM)]
	INST. ZOOM Function	Yes (× 1.5)	
	Autofocus System	Video AF System	
	Program AE (Shutter Speed)	Yes (Program AE only)	
	Selective Program AE	No	No [VM-E553LE/E555LE/E558LE] Yes [VM-E658LE/H755LE/H855LE/H955LE]
	AV Input Function	No	
	S Output	No [VM-E645LE/E658LE] Yes [VM-H845LE/H946LE]	No [VM-E553LE/E555LE/E558LE/E658LE] Yes [VM-H755LE/H855LE/H955LE]
	Audio System (Microphone)	Monaural [VM-E645LA] Stereo [VM-H845LA/H945LA]	Monaural [VM-E553LE/E555LE/E558LE/E658LE] Stereo [VM-H755LE/H855LE/H955LE]
	Multi Playback (PAL 60 Conversion)	Yes	
	Digital Effect & Fade	Yes	
	Date Serch	Yes	
	Electronic Image Stabilizer (E.I.S)	Yes (Picture element system)	No [VM-E553LE/E558LE] Yes (Electrical system) [VM-E555LE] Yes (Picture element system) [VM-E658LE/H755LE/H855LE/H955LE]
	Manual Focus	Yes (Auto/Manual selective)	
	LCD Display	3-inch [VM-E645LE/E648LE/H845LE] 3.5-inch [VM-H945LE]	2.5-inch [VM-E553LE/E555LE/E558LE/H755LE] 3-inch [VM-E658LE/H855LE] 3.5-inch [VM-H955LE]
	Internal DC Light	No [VM-E645LE/E648LE] Yes [VM-H845LE/H945LE]	No [VM-E553LE/E555LE/E558LE/H755LE] Yes [VM-E658LE/H855LE/H955LE]
	Internal Battery Charge	No	
ACCESSORY	AC Adapter/Charger	VM-ACE4E	
	Battery Pack	VM-BPL13	
	Remote Controler	VM-RME411A	
		VM-RME411A(R)	

COMPARISON OF MAIN CONTROL ICs

ITEM		VM-E645LE/E648LE VM-H845LE/H946LE	VM-E553LE/E555LE/E558LE/E658LE VM-H755LE/H855LE/H955LE
CAMERA (AUTOFOCUS)	CCD Sensor	ICX211 (IC1001)	ICX209AK-K [VM-E658LE/H755LE/ H855LE/H955LE] (IC1001) ICX206AK-6 [VM-E553LE/E555LE/E558LE] (IC1001)
	Gyro (Vert.)	ENC-03JA -03(IC1401)	
	Gyro (Horiz.)	ENC-03JB -03(IC1402)	
	Gyro Amp	NJM064V (IC1403)	
	Gyro Reset	XP4501 (Q1402)	
	CDS/AGC & A/D Conv.	HD49323F (IC1101)	
	DSP	HG73C012TE (IC1102)	
	Drive Pulse Generator	μPD16510GR (IC1103)	
	D (Digital) -μP	HD6433042ST39F (IC1104)	HD6432237M03TE (IC1104)
	EEPROM	X2509V-217 (IC1105)	
	F Det./Iris Drive	μPC5023GS-147GJG (IC1201)	
	Zoom /Focus Motor Driver	MPC17A34ZVM (IC1301)	μPD16833AG3 (IC1301)
CRT EVF	Video Amp/Vertical & Horizontal Deflection	HA118179F (IC2001)	
SYSTEM CONTROL (POWER) & SERVO	System Control μP	CXP87248A-147R (IC901)	CXP87248A-153R (IC901)
	Back-up Det.	NJU7284EV (IC902)	
	Character Gen.	BU6294AFV (IC904)	μPD6461GS-942-E1 (IC904) / μPD6461GS-941-E1 (IC904)
	Level Shift	SN74AHC126PW (IC906)	
	IR Receiver	GP1U101X (IC907)	
	ATF	μPC5023GS-122-E1 (IC601)	
	Cylinder Motor Drive	LB1950V-TRM (IC631)	
	Capstan Motor Drive	LB1951V-TRM (IC651)	LB1991V (IC651)
	Loading Motor Drive	BA6417F (IC671)	
	PWM	BA9735KV (IC551)	
	CHG Current Cont.	Not provided	MM6564XFBE (IC0001)
VIDEO & AUDIO	Video Head Switch	HA118189MPER (IC101)	
	Phase EQ/FM Peak	μPC5023GS-146 (IC102)	
	Video DSP	HG73C029TE (IC201)	HG73C061TE (IC201)
	V. RAM	NN51V4260A-50 (IC202)	MSM54V16258A50 (IC202)
	Sync Sepa.	BA7071F (IC203)	
	Video Amp	μPC5023GS-153 (IC204)	
	Audio Process	HA118193F [VM-H845LE/H945LE] (IC401) LA7458W [VM-E645LE/E648LE] (IC401)	HA118193F [VM-H755LE/H855LE/H955LE] (IC401) LA7458W [VM-E553LE/E555LE/E558LE/ E658LE] (IC401)
	Speaker Amp	TDA7052AT [VM-H845LE/H945LE] (IC402S)	TDA7052AT [VM-H755LE/H855LE/H955LE] (IC402S)
	Audio Matrix	M5223FP [VM-H845LE/H945LE] (IC404S, IC405S)	NJM2112 [VM-H755LE/H855LE/H955LE] (IC403S)
LCD DISPLAY	LCD Process	IR3Y29AM (IC5301)	
	LCD D/A Conv.	M62352GP (IC5302)	
	LCD SWR.	TL5001CD (IC5401)	TL5001CD (IC5401, IC5501)
	TRANS INV.	HLMM936 (IC5501)	Not provided
	LED Cont.		NJM2406F (IC5502)
	Pulse Gen.	LZ9GH16 [VM-E645LE/E648LE/H845LE] (IC5601) LZ9GH17 [VM-H945LE] (IC5601)	LZ9GH16 [VM-E658LE/H855LE] (IC5601) LZ9GH18 [VM-E553LE/E555LE/E558LE/ H755LE] (IC5601) LZ9GH20 [VM-H955LE] (IC5601)
	OSC Cont.	NJM3414 AV (IC5602)	

JIGS AND TAPES FOR ADJUSTMENT

1. Alignment Tape 20HSC-3: No. 7099232 	2. Cassette Torque Meter SRK-8T-232: No. 7099236 SRK-8T-212: No. 7099402 	3. Master Plane No.7099237 	4. Reel Disk Height Jig No. 7099238 
5. Special Driver No. 7099239 	6. C12 Light Balance Filter No. 7099369 	7. ATF-R Jig (*1,*2) No. 7099461 	8. DSP-R jig No. 7099448 
9. DSP AV Output Jig No. 7099456 	10. Personal Computer [Goods on the market] 	11. Personal Computer Cable RS-232C (9-pin or 25-pin) Straight Type Cable [Goods on the market] 	
12. AV Output Cable (*3) [Accessory] US Pin Jack Type or 20-pin AV Jack Type  		13. Adjustment Floppy Disk [New Jig] No. TP11933 	
14. 4-Pin Extension Cable No.7069203 	15. LCD Adjustment Jig [New Jig] No. JT17731 	16. ODC DC CORD [New Jig] No. TE13171 	

Caution for jigs :

*1. Always set SW3 on the ATF-R jig to ON.

*2. The ATF jig (No.7099386) can also be used in place of ATF-R jig to adjust this model.

*3. Either the monaural or stereo AV input/output cable can be used.

HOW TO USE THE EXTENSION CABLES AND JIGS

Name of Jig	Parts No.	How to Use
4-Pin Extension Cable	7069203	Installed between the VCA circuit board and mode switch (mechanism state switch).
ODC DC Cord	TE13171	Power supply cable for power shut off level (ODC) adjustment. Positive: Black Negative: Black & White

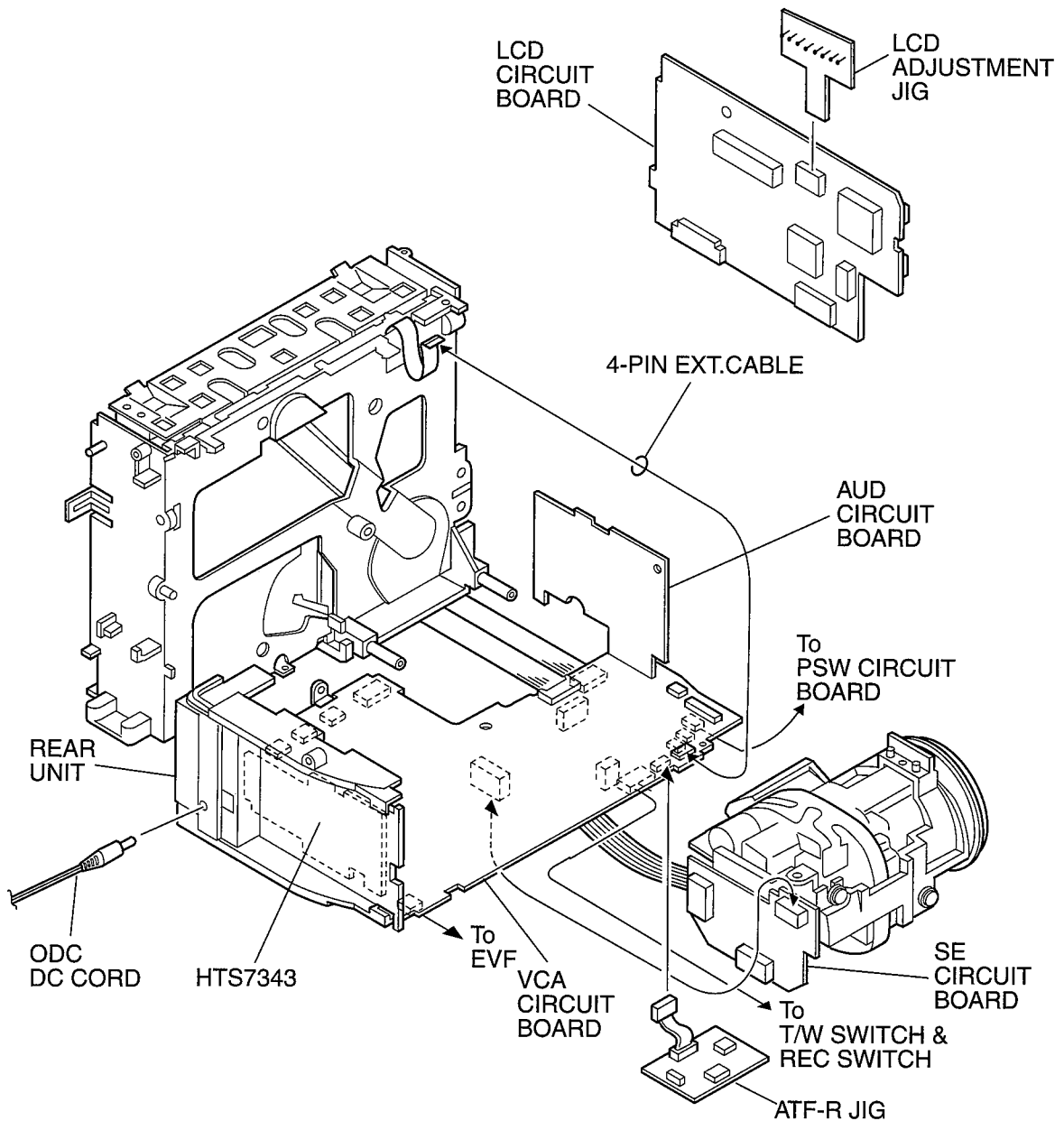


Fig.1-1 Extension Cable and Jig Connection Diagram

SERVICE MANUAL ABBREVIATION LIST

A	
ACC	Automatic Color Control
ADD	Adder
ADRS	Address
AF	Automatic focus (Autofocus)
AFC	Automatic Frequency Control
AGC	Automatic Gain Control
AGC KILLER	AGC Killer Voltage
AI	Automatic Intelligence
AIC	Automatic Iris Control
ALC	Automatic Level Control
AMP	Amplifier
APC	Automatic Phase Control
ASBL	Assemble (Phase Matching)
AUD.	Audio
AUX	Auxiliary
A/D	Analog-to-Digital Converter
A.DUB	Audio Dubbing
B	
B (BLU)	Color Signal Blue
BATT.	Battery
BF	Burst Flag
BG	Burst Gate or Back Ground
BGP	Burst Gate Pulse
BLK	Blanking
BPF	Bandpass Filter
BUF.	Buffer Amplifier
B-YL	Color Difference Signal B-YL
C	
C (CHROMA)	Chrominance Signal
CAM	Camera
CAPST.	Capstan
CARRI.	Carrier
CATV	Cable TV
C.BLK	Composite Blanking
CCD	Charge Coupled Device
CDS	Correlated Double Sampling
CG	Character Generator
C.FG (CFG)	Capstan Frequency Generator
C.FREE RUN	Capstan Free Run
CH (Ch or ch)	Channel
CHARA.	Character
CHD	Camera Horizontal Drive Pulse
C.MEMORY	Counter Memory
CNR	Chroma Noise Reducer
COM.	Common
COMPA.	Comparator
COMPE.	Compensator
COMP-EXP	Compressor-Expander
COMPO	Composite
CONT.	Control
CONV.	Converter
COUNT.	Counter
CP	CP
C.PAUSE	Camp Pulse
C/R	Capacitor/Resistor
C.RESET	Countor Reset or Camera Reset

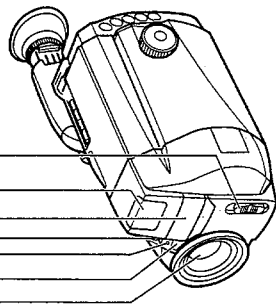
C	
C.REVERSE	Count Reverse
CS	Communication Signal
CST	Cassette
C.SYNC	Composite Synchronizing Signal
CTL	Control Track Pulse (Control)
CYL	Cylinder
D	
D (Digital)	Digital
DA	Double Azimuth
D/A	Digital to Analog Converter
D-D	Direct Drive
DEEMPHA.	Deemphasis
DEF	Deflection
DEMODO.	Demodulator
DET	Detector
DIFF. AMP	Differential Amplifier
DISP.	Display
DL Delay Line	
DO	Dropout
DOC	Dropout Compensator
DSP	Digital Signal Processor
D/W	Dark/White
D.ZOOM (DZ)	Digital Zoom
E	
EAROM (EA-ROM)	Electrically Alterable Read Only Memory
EEPROM (EEP-ROM)	Electrical Erasable Proframmed
E-E	Electronic-to-Electronic
EIS (E.I.S.)	Electronic Image Stabilizer
EMPHA. (EMPH)	Emphasis
EQ	Equalizer
ESS	Supply End Sensor
EST	Take-up End Sensor
EVF	Electronic Viewfinder
EXT.	External
E.ZOOM	Electronic Zoom
F	
F.ADV	Frame Advance
F/V	Frequency-to-Voltage Converter
FB	Feed back
FE	Full Erase
FF (F/F)	Flip Flop
F.FWD	Fast Forward
FG	Frequency Generator
FM	Frequency Modulation
FREQ.	Frequency
fsc	Sub Carrier Frequency
FWD	Forward
G	
GEN.	Generator
GND	Ground
H	
H (HORIZ.)	Horizontal
HBHi-Band	

H	
HBFB	Horizontal Burst Flag
HD	Horizontal Drive
Hi-Fi	High Fidelity
HPF	High-pass Filter
I	
IF	Intermediate Frequency
INDI.	Indicator
INST.	Instant
INT.	Internal
INV.	Inverter
I/O	In/Out (Input/Output)
IR	Infrared Rays
L	
LB	Low-Band
LCD	Liquid Crystal Display
LIN.	Linear
LM	Loading Motor
LNC	Line Noise Canceller
LOG	Logarithm
LP	Long Play
LPF	Low-pass Filter
LUMA	Luminance
L/R	Left/Right
M	
MAN	Manual
M.BRAKE	Main Brake
M.CUT	Monitor Cut
MEM.	Memory
MIC	Microphone
MIX	Mixer
MMV	Monostable Multivibrator
MOD.	Modulator
M.STATE	Mechanism State
M.STOP	Memory Stop
N	
NEG	Negative
NFB	Negative Feed Back
NOR. (NORM)	Normal
NR	Noise Reduction
O	
OB	Optical Black
OSC	Oscillator
OSD	On-Screen Display
P	
PB (PLAY)	Playback
PG	Pulse Generator
PLL	Phase Locked Loop
POS.	Positive
PROG.	Program
PROT.	Protector
PWM	Pulse Width Modulation
R	
R (RED)	Color Signal Red
RAM	Random Access Memory
REC	Record
RECT.	Rectifier

R	
REF.	Reference
REG.	Regulator
REV	Review
REW	Rewind
RF	Radio Frequency
ROM	Read Only Memory
RSS	Supply Reel Sensor
RST	Take-up Reel Sensor
R-YL	Color Difference Signal R-YL
S	
SAW	Sawtooth Signal
SC1 (0°)	3.58MHz Subcarrier Signal 1 (0-degree Phase Shifted)
SC2 (90°)	3.58MHz Subcarrier Signal 2 (90-degree Phase Shifted)
SEPA. (SEP)	Separator
S/H	Sample and Hold
SP	Standard Play or Speaker
S.REEL	Supply Reel Sensor
SRCH	Search
SRV	Servo
STABI.	Stabilizer
S.TRACK	Slow Tracking
STBY	Standby Mode
S-VHS	Super VHS
SW	Switch
SW30Hz	30Hz Head Switching Pulse (15 or 25Hz Head Switching Pulse)
SYNC	Synchronizing signal
SYS.CON	System Control
T	
T (TELE)	Telephoto Angle
T.BRAKE	Take-up Brake
TP	Test Point
T.REEL	Take-up Reel Sensor
TRS	Transfer
V	
V (VERT.)	Vertical
V.AGC	AGC Voltage
VCO	Voltage Controlled Oscillator
VD	Vertical Drive
V.DUB	Video Dubbing
VHS	Video Home System
VOL.	Volume
VP	Voltage Pulse
VCO	Voltage Controlled Crystal Oscillator
W	
W (WIDE)	Wide Angle
WHT	Color Signal White
WHD	Wide Horizontal Drive
WHT BAL.	White Balance
Y	
Y	Luminance Signal
Y/C	Luminance/Chrominance
YEL (Ye)	Color Signal Yellow
YL	Luminance Signal (Low Component)

CONTROLS AND FUNCTIONS

1 2 3 4 5 6 7

**1. Lens Door**

The door will automatically open when the CAM/OFF/VIDEO switch is set to "CAM". Setting the switch to "OFF" will close the door.

2. Infrared Ray Receiving Section

Receives infrared rays from the remote control unit.

3. Record Indicator

This indicator flashes to indicate that the camera/recorder is recording.

4. Active Light Switch

(for VM-H855LE/VM-H955LE)

When this switch is set to AUTO, the active light turns on or off automatically according to the brightness of the object. When switch is set to ON, the active light turns on. Set the switch to OFF to turn the light off manually.

5. Microphone

Sensitive to sounds coming from the direction in which the camera is pointed.

6. Active Light

(for VM-H855LE/VM-H955LE)

When the CAM/OFF/VIDEO switch is in CAM position, the active light is turned on and off automatically or manually depending on the position of the light switch. Turn the active light off after use.

NOTES:

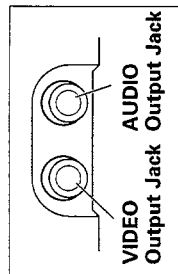
- The active light will not turn on when the CAM/OFF/VIDEO switch is set to VIDEO

5

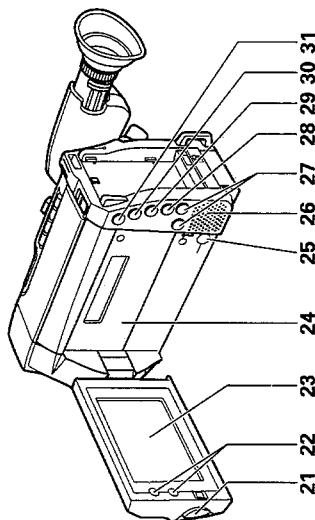
CONTROLS AND FUNCTIONS

ENGLISH

18 Behind the cover



21 22 23 24 25 26 27 28 29 30 31

**9. PLAY Button**

Use to play back recorded tapes and create a title.

NOTE: When the camera/recorder is in record/pause (stand-by) mode, pressing and holding this button will play the tape at normal.

10. REW/REVIEW Button

Press this button during stop or fast forward mode, and fast-rewinding starts. During rewind, press and hold this button to visually scan the tape backwards at 7 times the normal playback speed. Press the button during playback of tape, and the tape is played back in the rewind direction approximately 7 times faster than the normal speed to confirm the recorded contents. Press PLAY button to return to normal playback mode or press STOP button to stop tape movement ("F-SEARCH AND R-SEARCH", page 28). Also use this button to review the last few seconds of the tape you are recording. Use REW/REVIEW button when setting the date/time and creating a title.

NOTE: You can also visually scan backward when the camera/recorder is in record/pause (stand-by) mode by pressing and holding this button.

11. STOP Button

The STOP button is used to stop playback, rewind, and fast forward operations. The STOP button has no effect during record

operation. Also use STOP button when setting the date/time and creating a title.

12. BATTERY Release Lever

Releases the battery attached to camera/recorder

13. CHARGE Indicator

When the battery is being charged, this indicator will flash or light to show the charged level as a reference ("CHARGING THE BATTERY", page 17).

14. Electronic Viewfinder**15. Diopter Control**

To use the electronic viewfinder, pull the eye cup all the way, and then turn this control for your optimum focus adjustment.

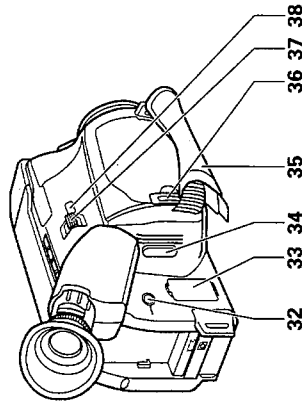
16. PROGRAM AE Dial (for VM-H755LE/VM-H855LE/VM-H955LE)

Use this dial to select the exposure that suits the subject condition. Turn the dial to select the desired recording mode: you can record scenes with the exposure according to the mode ("USING THE PROGRAM AE DIAL", page 37). During playback, this dial can also be used to adjust the finer details of playback pictures. (See page 38 for details.)

17. Power Supply Attachment Section

Attach the battery pack (provided) here.

6



18. AUDIO/VIDEO Output Jacks (Behind the cover)

Use this jack to connect the camera/recorder to a VCR or television.

- Connect the yellow plug of the audio/video cable to the yellow jack (VIDEO OUT) and the white plug to the white jack (AUDIO OUT).

19. DC IN Jack

Plug in the AC adaptor here to charge a battery or power the camera/recorder from AC outlet. In addition, connect the optional car battery cord to this jack, in which case, you will need a DC cord (optional).

20. Shoulder Strap Slots

Attach the shoulder strap here.

21. OPEN Button

Push this button to open the LCD monitor.

22. Bright Control Buttons

Use these buttons to adjust the brightness of the LCD monitor screen.

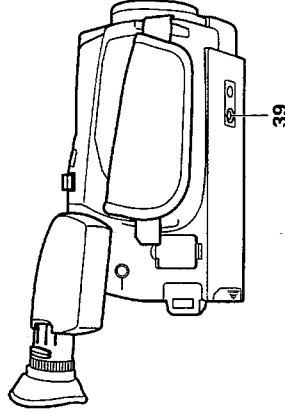
23. LCD Monitor

You can view the pictures as they are being recorded and play them back immediately after recording on the LCD screen.

24. Cassette Holder

Press the EJECT button to open the cassette holder. Be aware of the cassette direction when inserting.

NOTE: Power source must be connected to open the cassette holder.



28. DATE/DISP. Button

When the CAM/OFF/VIDEO switch is set to CAM, this button can be used as the DATE or DISPLAY button; set the date and time, and select the date display you want to record. In the VIDEO mode, the DATE/DISP. button is used as the DISPLAY button.

NOTE: Be sure to insert the clock battery before setting the date and time or creating a title.

29. EFFECTS Button

Use this button to digitally process the image you are going to record or the playback image. During recording, you can select among six modes: 16×9, negative/positive, ×400 digital zoom, half-mirror, mosaic, or art. During playback, you can select among three modes: 16×9, art, or sepia.

30. FADE Button

During recording you can add a professional touch to your recordings by fading in and out of the scenes. You can select the six fade modes — the white fade, wipe fade, mosaic fade, art fade, zoom fade and black-and-white fade

31. EIS (Electronic Image Stabilizer) Button

Press to display “EIS” in the viewfinder or on the LCD monitor. EIS corrects slight shaking of the image to be recorded.

32. PAL60 Button (Multi Playback)

Used when playing NTSC tapes recorded in the SP mode.

Press this button to display “PAL60” only when connecting the camera/recorder to a PAL TV which handles PAL60 mode signal and has vertical sync adjustment circuitry for 60Hz.

NOTES:

- A PAL recorded tape cannot be normally played back when “PAL60” is displayed.
- The PAL60 button is effective during playback only.
- See TV instruction manual for details about setting of PAL60 mode.
- Depending on the state of the tape recorded, the PAL60 button may not operate normally.
- The PAL60 mode will be released when the camera/recorder is turned off.

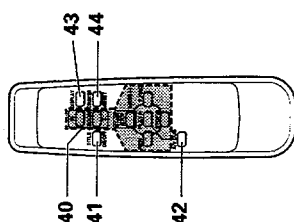
33. Audio/Video Output Jack

(Behind the cover)

For VM-E555LE: Use the RF Converter Unit (optional) to connect this jack to a TV to view the pictures played back by the camera/recorder.

For VM-H755LE/VM-H855LE/VM-H955LE:

Use the Audio/Video output cable (provided) or RF Converter Unit (optional) to connect this jack to a TV to view the pictures played back by the camera/recorder.



ENGLISH

34. Start/Stop Button

This button is used to control the camera/recorder. When this button is pressed with the camera/recorder set to the record/pause mode, the tape runs to start recording.

When this button is pressed again, the tape stops and the camera/recorder enters the record/pause (stand-by) mode. This button may also be used to display a still picture during playback mode.

35. Hand Strap

Adjust to best fit to your hand. (Refer to page 10.)

36. Clock Battery Compartment

Pull the battery holder and install the lithium battery (provided).

37. Power Zoom Control

This control performs zooming electrically. "W": Picture becomes wider gradually. "T": Picture becomes telescopic gradually.

38. INST. ZOOM (Instant Zoom) Button

Use this button to magnify the image being recorded 1.5 times momentarily.

39. Tripod Mount Screw

Use this screw to mount the camera/recorder on a tripod (generally available).

40. Camera/Recorder Control Buttons

These shaded buttons on the remote control function the same as those on the camera/recorder

41. TITLE ON/OFF Button (only on the remote control)

Use this button to store a title in memory or recall the stored title and record it superimposed on the picture being shot.

42. A/V DUB Button (only on the remote control)

This button is used to record new audio and video in place of existing audio and video.

43. DISPLAY Button

Use this button to select the display in the viewfinder or on the LCD monitor.

44. COUNTER RESET Button (only on the remote control)

Press this button to reset the linear time counter in the viewfinder or on the LCD monitor to "0:00:00".

Other models:

There is no difference in operation method, except the item in following table.

	Not included VM-E553LE	Included VM-E555LE	Not included		Included		
			VM-E558LE	VM-E658LE	VM-H755LE	VM-H855LE	VM-H955LE
System	Normal 8	Normal 8	Normal 8	Normal 8	Hi-8	Hi-8	Hi-8
Audio	Monaural	Monaural	Monaural	Monaural	Stereo	Stereo	Stereo
Microphone	Monaural type	Monaural type	Monaural type	Monaural type	Stereo type	Stereo type	Stereo type
LCD monitor size	2.5-inch	2.5-inch	2.5-inch	3.0-inch	2.5-inch	3.0-inch	3.5-inch
Active light	No	No	No	Yes	No	Yes	Yes
Active light switch	No	No	No	Yes	No	Yes	Yes
Program AE	Auto	Auto	Auto	Auto/ Mode select	Auto/ Mode select	Auto/ Mode select	Auto/ Mode select
Program AE Dial	No	No	No	Yes	Yes	Yes	Yes
E.I.S	No	Yes	No	Yes	Yes	Yes	Yes
E.I.S switch	No	Yes	No	Yes	Yes	Yes	Yes

1. BEFORE STARTING DISASSEMBLY

- (1) This camera/recorder must basically be dismantled in the unloading stop state.
To manually set the mechanism to the unloading stop state, refer to "3. Method for Manual Unloading".
- (2) This camera/recorder will not perform the eject operation unless the LCD monitor is open.
- (3) Dismantle each component according to "1.1 Disassembly Procedure".
- (4) For reassembly, perform the reverse procedure to disassembly when not otherwise specified.
- (5) Be sure not to disassemble the lens block.
- (6) Disconnect flat cables from connectors by the procedure shown in Fig. 1-1. Since many circuit boards in the camera/recorder are connected by in-board connectors, be sure to follow DISASSEMBLY when removing the circuit boards.

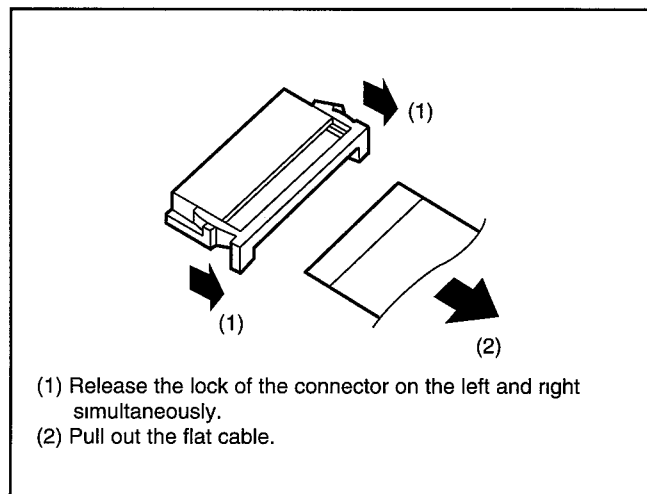
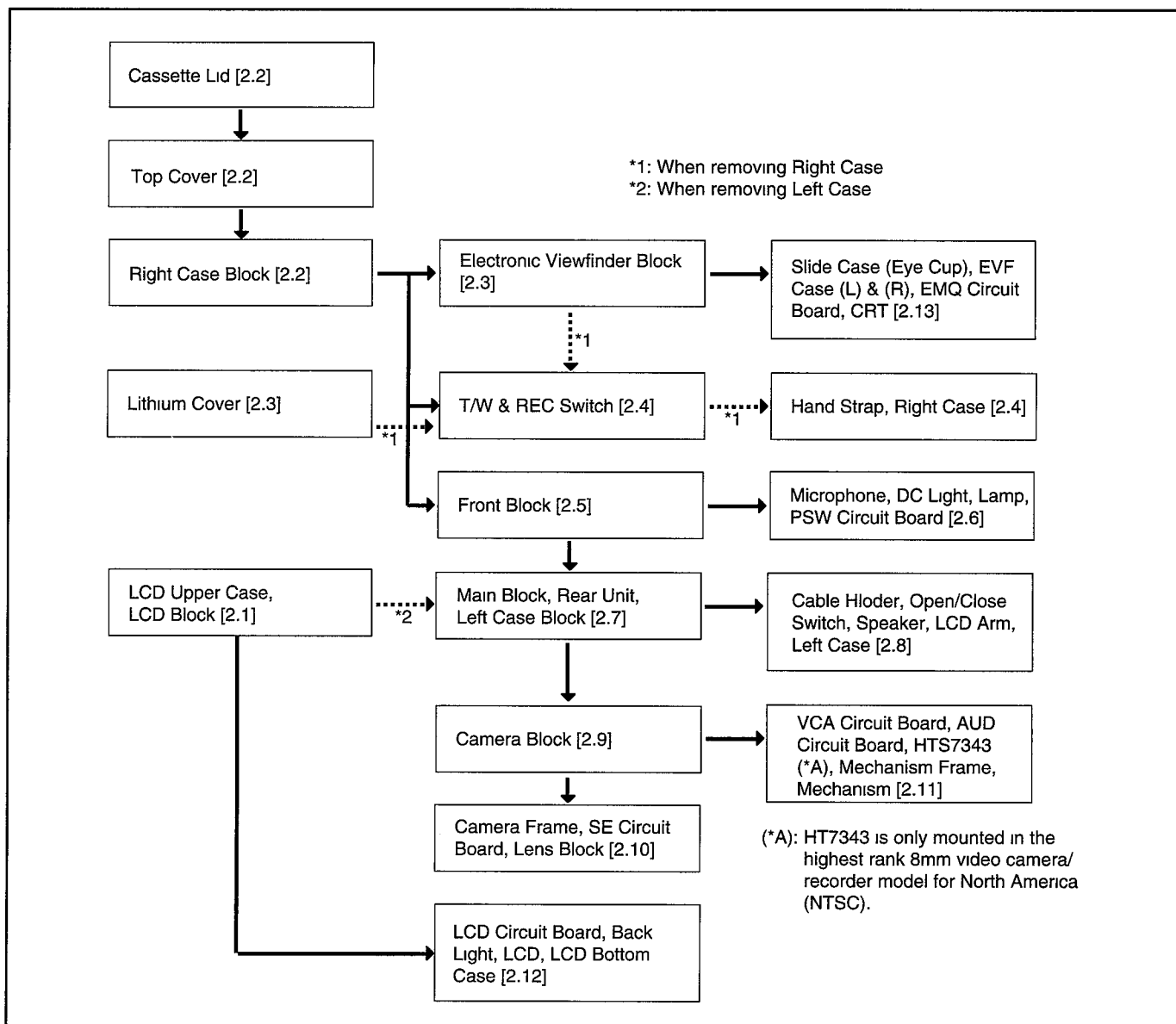


Fig. 1-1

1.1 Disassembly Procedure



2. CASES AND CIRCUIT BOARDS (MECHANISM BLOCK) REMOVAL

2.1 LCD Upper Case, LCD Block (Fig. 2-1)

- Notes:** 1. Be careful that the LCD screen is not damaged or smudged. (If dirt adheres to it, use a soft cloth to wipe it off.)
2. Handle the LCD panel and backlight with extreme care.

Reinstallation procedure and caution:

1. Be careful of the position of program AE rotary switch when reinstalling the LCD upper case. (Make sure that the switch on the circuit board and the knob on the case are set to the positions shown in Fig. 2-1.)

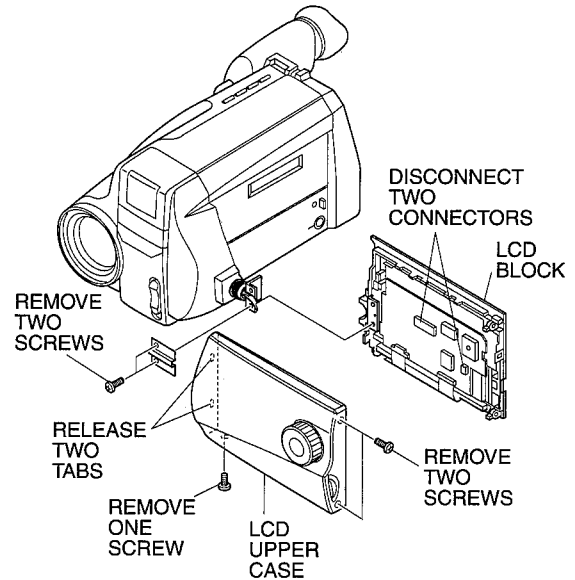
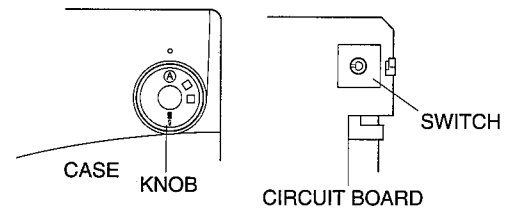


Fig. 2-1

2.2 Cassette Lid, Top Cover, Right Case Block (Figs. 2-2, 2-3)

■ Top Cover Removal

- (1) Insert a flat-bladed screwdriver between the top cover and subchassis, and push section (B) of the plate spring in the direction of arrow (C), to remove the top cover in the direction of the arrow. (See Figs. 2-2, 2-3)

Reinstallation procedure and caution:

1. To install the cassette lid, first engage sections (A) with the cassette holder.

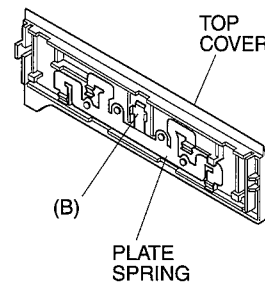
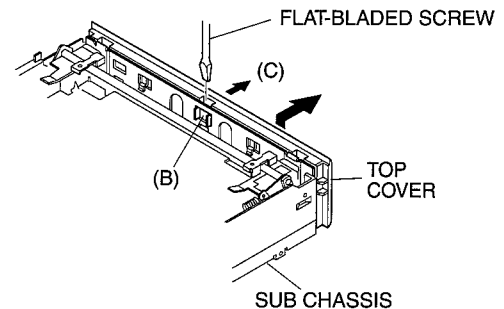
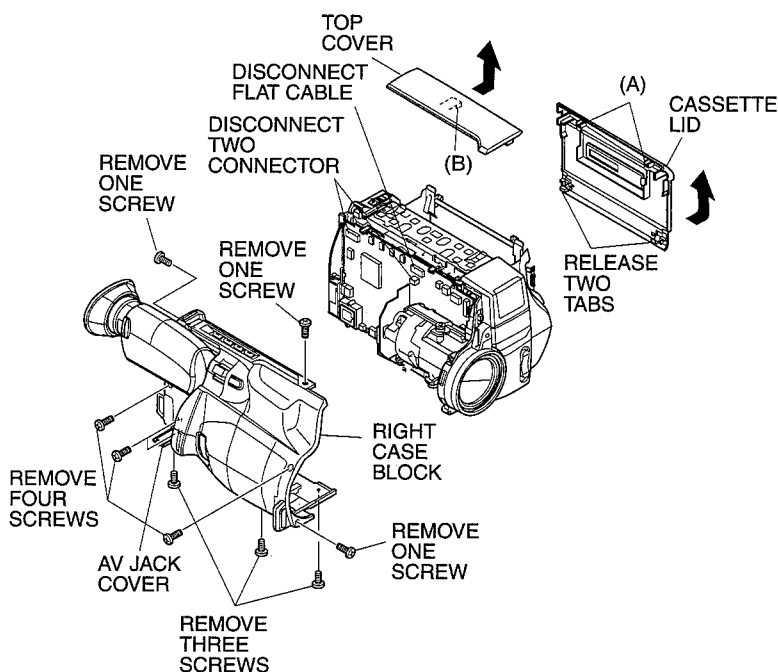


Fig. 2-3

Fig. 2-2

2.3 Electronic Viewfinder (EVF) Block, Lithium Cover (Fig. 2-4)

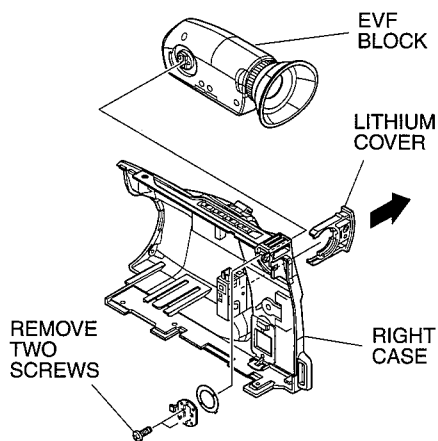


Fig. 2-4

2.4 T/W & REC Switch, Hand Strap, Right Case (Fig. 2-5)

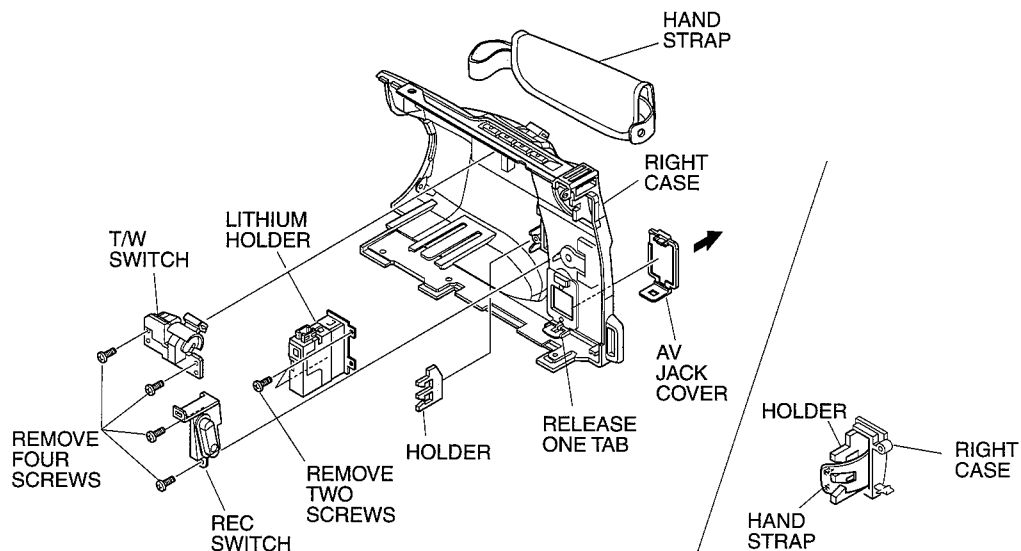


Fig. 2-5

2.5 Front Block (Fig. 2-6)

Reinstallation procedure and caution:

1. The O-ring must be installed in the position shown in Fig. 2-6(1).
2. When installing the front block, make sure of engagement between switch (B) and switch knob (A).

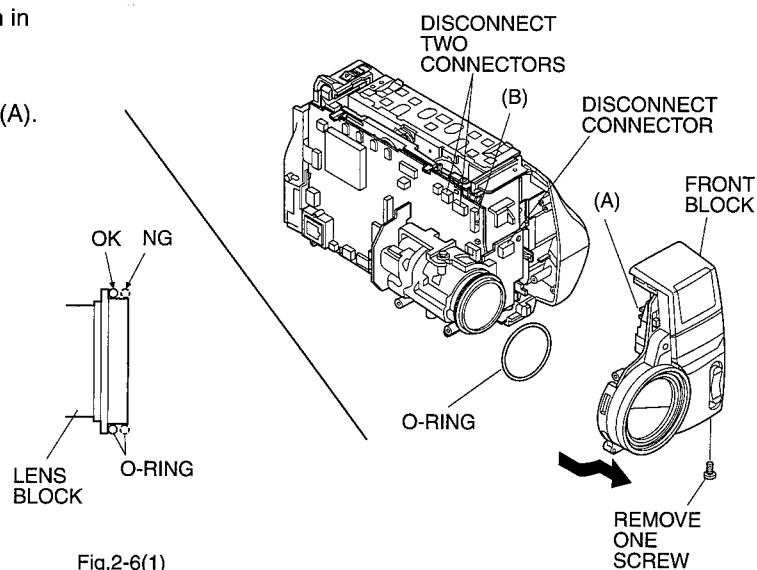


Fig. 2-6

2.6 Microphone (MIC), DC Light, Lamp, PSW Circuit Board (Fig. 2-7)

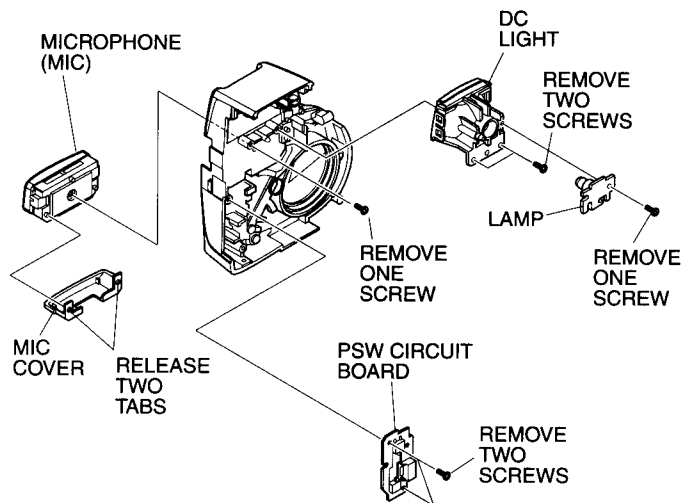


Fig. 2-7

2.7 Main Block, Rear Unit, Left Case Block (Fig. 2-8)

Reinstallation procedure and caution:

1. Connect connectors (A) and (B) securely.

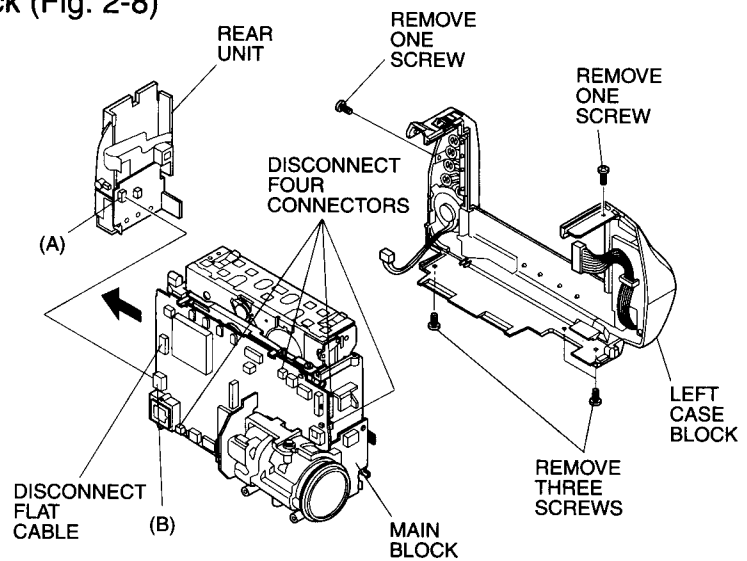


Fig. 2-8

2.8 Cable Holder, Open/Close Switch, Speaker, LCD Arm, Left Case (Fig. 2-9)

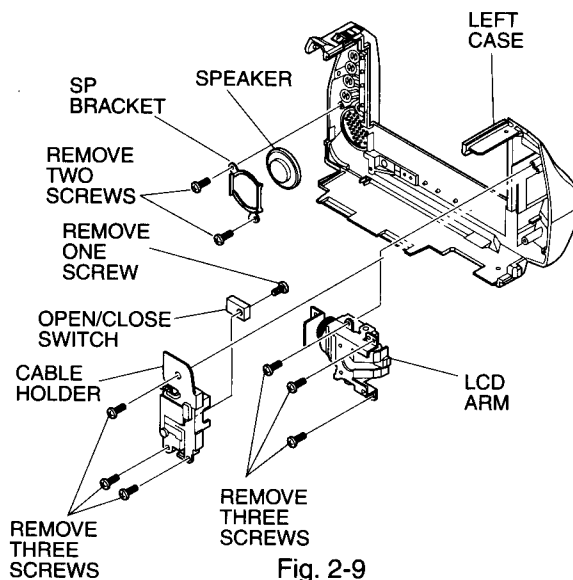


Fig. 2-9

2.9 Camera Block (Fig. 2-10)

Reinstallation procedure and caution:

1. Connect connectors (A) and (B) securely.

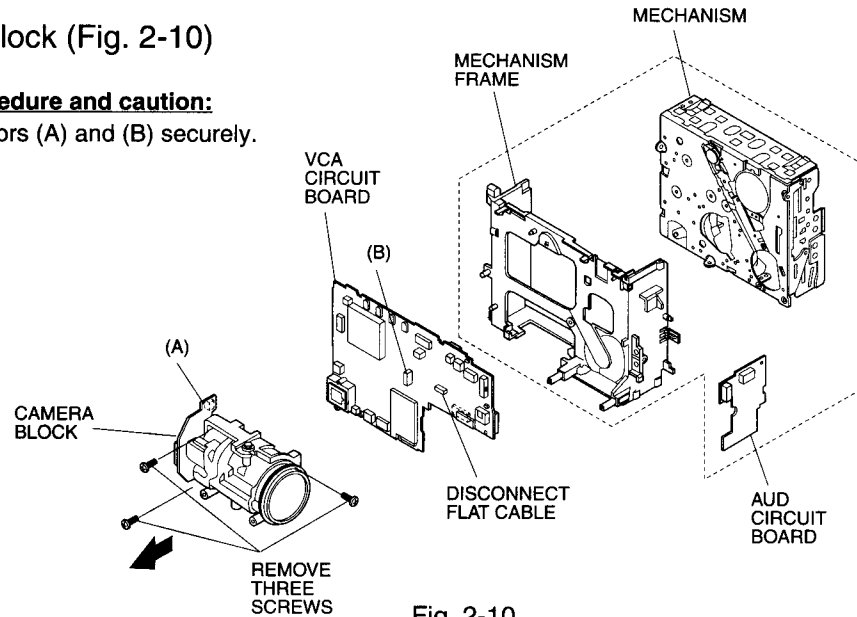


Fig. 2-10

2.10 Camera Frame, SE Circuit Board, Lens Block (Fig. 2-11)

Note: Be careful not to damage the crystal filter.

Reinstallation procedure and caution:

1. The crystal filter is non-directional.
2. Fit in the CCD image sensor parallel to the SE board, fix it with screws, and then solder it.

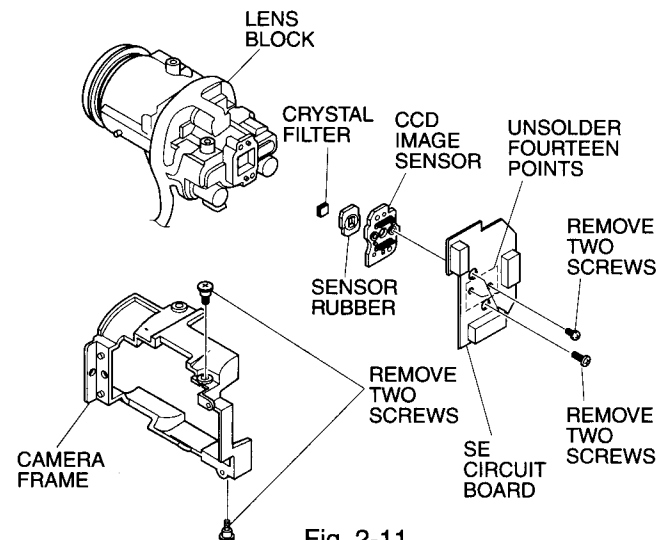


Fig. 2-11

2.11 VCA Circuit Board, AUD Circuit Board, HTS7343 (*1), Mechanism Frame, Mechanism (Fig. 2-12)

Reinstallation procedure and caution:

1. Connect connectors (A) and (B) securely.
2. Connect connectors (C) and (D) securely.

(*1): HT7343 is only mounted in the highest rank 8mm video camera/recorder model for North America (NTSC).

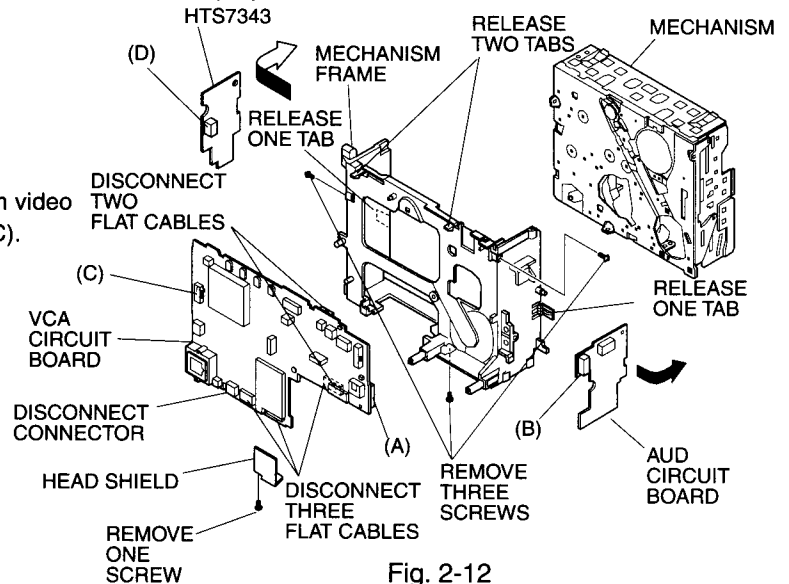


Fig. 2-12

2.12 LCD Circuit Board, Back Light, LCD, LCD Bottom Case (Fig. 2-13)

- Notes:** 1. Be careful that the LCD screen is not damaged or smudged. (If dirt adheres to it, use a soft cloth to wipe it off.)
2. Handle the LCD panel and backlight with extreme care.

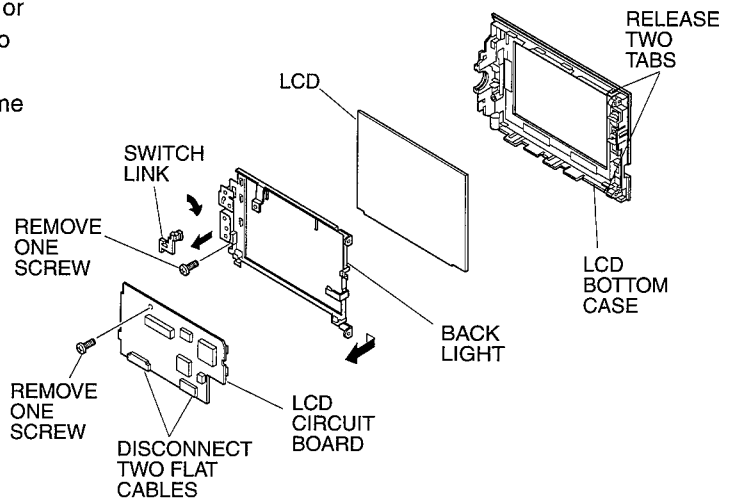


Fig. 2-13

2.13 Slide Case (Eye Cup), EVF Case (L) & (R), EMQ Circuit Board, CRT (Fig. 2-14)

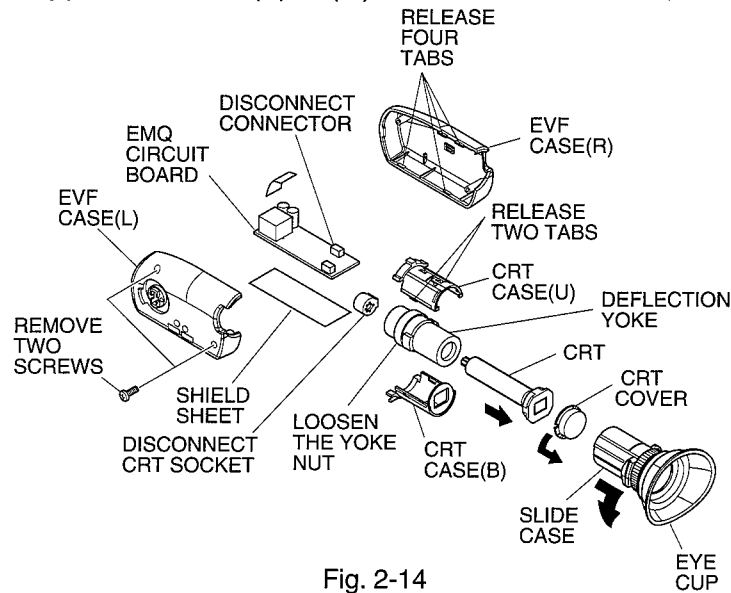


Fig. 2-14

3. METHOD FOR MANUAL UNLOADING

CAUTION :

Perform this procedure for emergency only when normal unloading is not possible because the electrical circuits or loading motor is defective.

- (1) Open the LCD monitor. (See Figs. 3-1, 3-2)
[Or, remove the LCD block, referring to Fig. 2-1.]
- (2) Lift the top cover at the right side (near the section of the arrow), to provide a gap. (See Fig. 3-1)
- (3) Insert a flat-bladed screwdriver into section (A), and jump the plate spring to release the top cover in the direction of the arrow. (See Figs. 3-1, 3-2)
- (4) Remove the right case block. (See Fig. 2-2)
- (5) Disconnect connector (CN905) from PG905 on the VCA board, and short pins 1 and 2 of PG905. (See Fig. 3-3)
- (6) Disconnect connector (CN604) from PG604 on the VCA board, and supply 4V DC to CN604 (directly to the loading motor), by connecting the positive terminal to brown wire, and negative terminal to the red wire, for unloading.

- Notes:**
1. If tape is loaded, also turn the capstan motor manually to take up the tape.
 2. Connecting CN604 red wire (+) and brown wire (-) results in loading.

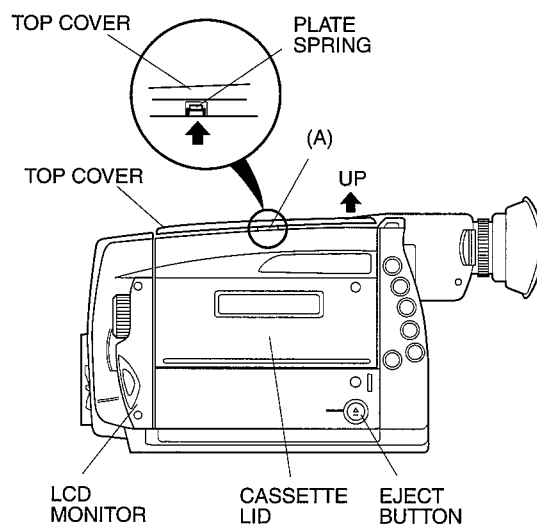


Fig. 3-1

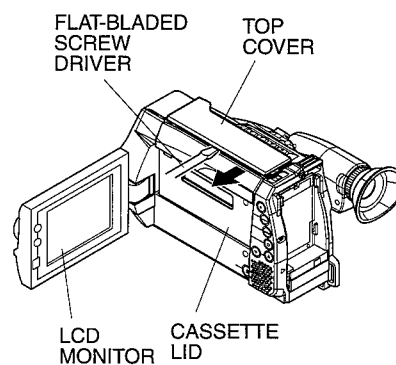


Fig. 3-2

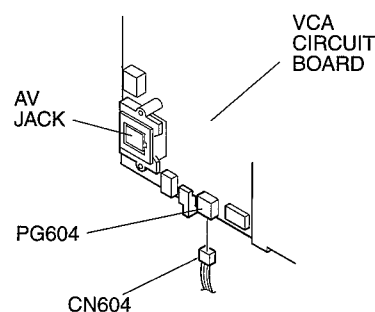
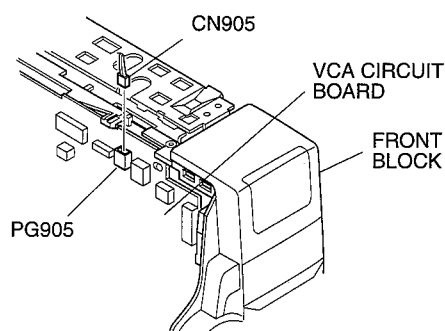


Fig.3-3

If unloading does not occur even when 4V DC is directly supplied to the loading motor, perform the following procedure:

- (7) Remove the front block and rear unit. (See Fig. 2-6)
- (8) Remove the camera block. (See Fig. 2-10)
- (9) Remove the VCA circuit board and mechanism frame. (See Fig. 2-12)
- (10) Remove 7 screws holding the left case and remove the main block in the direction of the arrow from the left case. (See Fig. 3-4)
- (11) Remove the cassette lid. (See Fig. 2-2)
- (12) Release 2 tabs and pull out the loading motor from the loading motor holder. (See Fig. 3-5)

Note: The above removal is different from normal removal. In normal circumstances, remove the loading motor assembled with the loading motor holder. (The loading motor and loading motor holder comprise an assembly.)

- (13) Turn over the mechanism.

Note: Do not turn over with the idler cover removed.

- (14) Use a flat-bladed screwdriver, etc. to turn cam gear (A) or cam gear (B) in the directions of the arrows.

Notes: 1. Be careful not to damage the cam gears.
2. If tape is loaded, also turn the capstan motor manually to take up the tape.

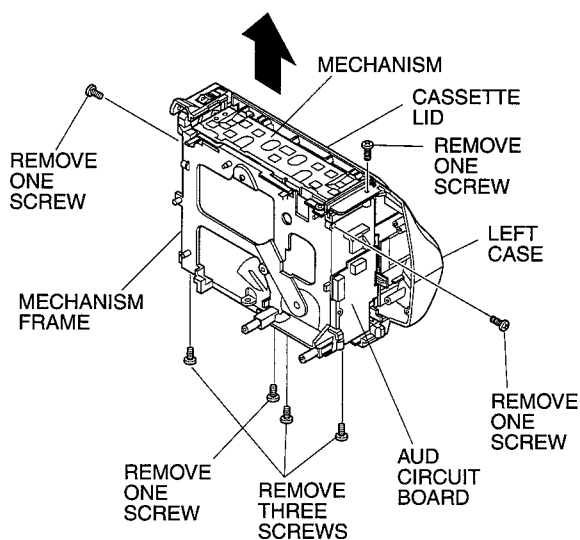


Fig.3-4

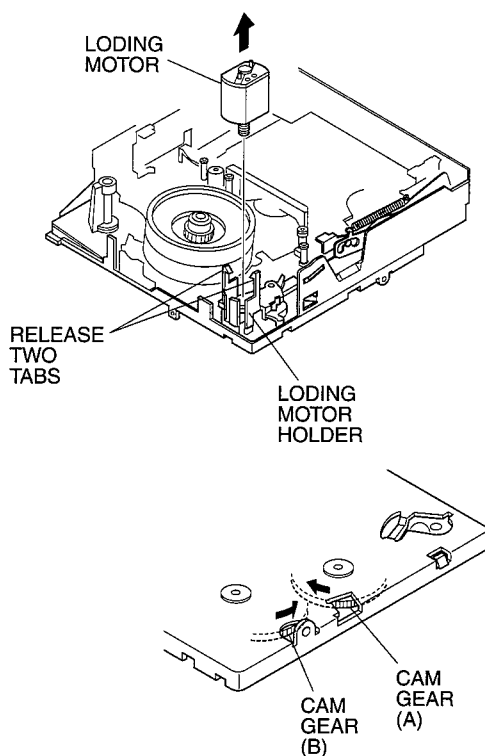


Fig.3-5

Trademark

MS-DOS is a registered trademark of Microsoft Corporation.

Abbreviation

MAP: Digital adjustment program for the camera.

DSP: Digital signal processor

Before Starting Adjustment

Set the DATE of the camera/recorder.

1. CONNECTION FOR ADJUSTMENT

- Notes:**
1. Perform the camera section adjustment and system control/servo circuit adjustment in VCR section using a personal computer.
 2. It is not necessary to remove cases for camera section and system control/servo circuit adjustments.

3. The ODC DC cord is a jig which is to be used in the Power Shut Off Level (ODC) Adjustment. For other adjustments, the AC adapter can be used as a power supply.

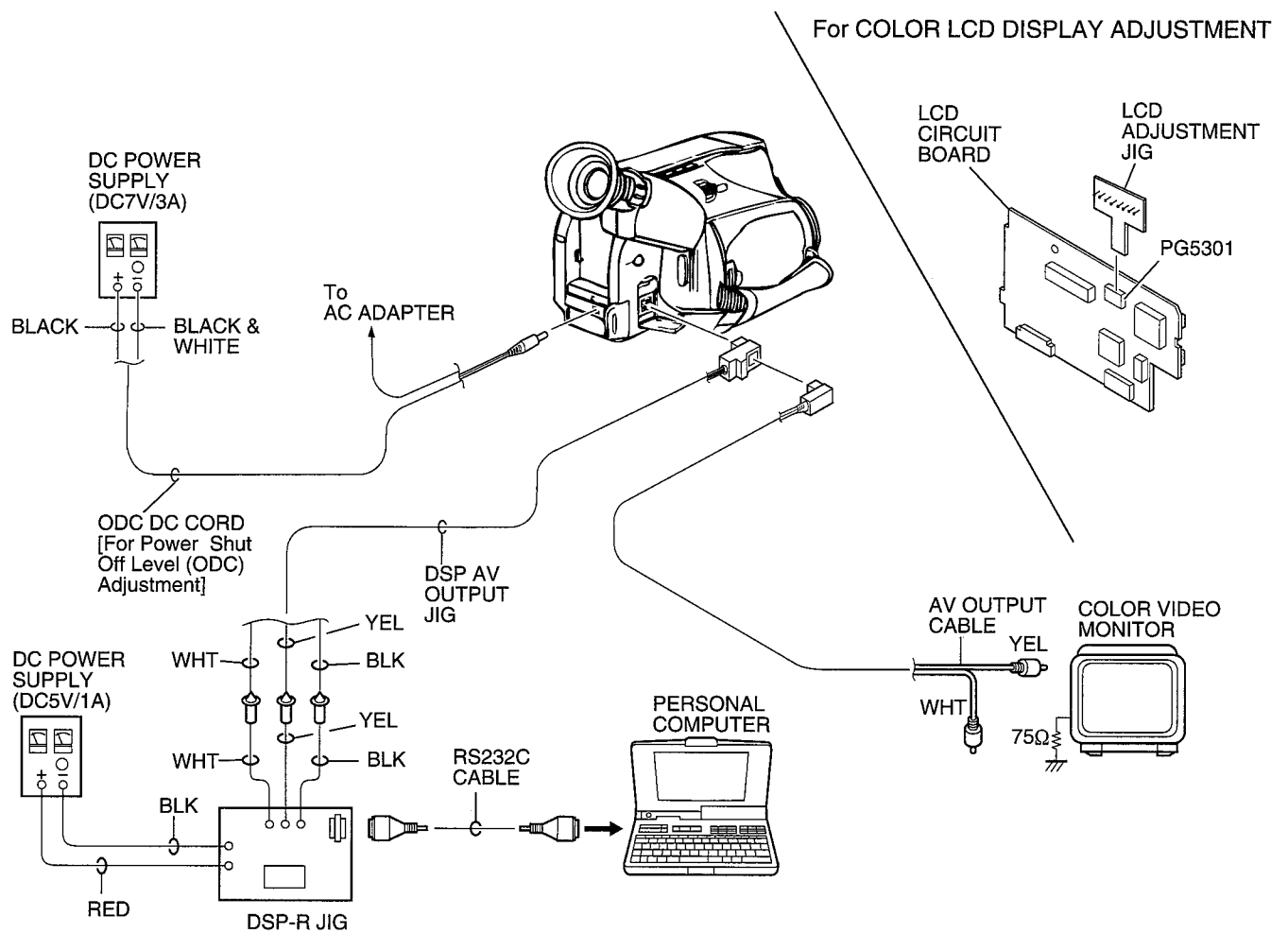


Fig. 1-1 Connection for adjustment

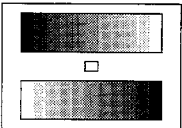
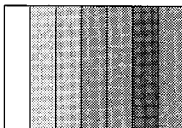
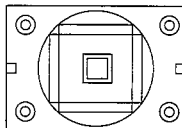
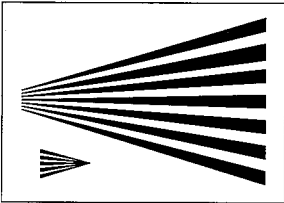
2. CAMERA SECTION ADJUSTMENT

2.1 Test Equipment Necessary for Adjustment

- Oscilloscope (dual trace) [& Vectorscope]
- Digital Voltmeter (DVM)
- Color Video Monitor
- Adjustment Floppy Disk
- Personal Computer
- Personal Computer 9-pin or 25-pin (RS232C) Cable
- DSP-R Jig
- DSP AV Output Jig
- LCD Adjustment Jig
- Light Box (3100°K)
- Light Balancing Filter C12
- DC Power Supply (DC7V/3A)
- DC Power Supply (DC5V/1A)

2.2 List of Charts for Camera Adjustment

Table 2-1

Gray Scale Chart	Color Bar Chart	Resolution Chart
		
Backfocus Adjustmant Chart		

2.4 Preset Positions of Switches and Controls During Adjustment

- CAM/OFF/VIDEO switch "CAM" position
- INST. ZOOM Not Display mode
- DATE Not Display mode
- DISPLAY Not Display mode
- TITLE Not Display mode
- FOCUS Autofocus mode
- E.I.S OFF mode
- 16 × 9 OFF mode
- FADE OFF mode

Caution

- 1. Since the adjustment program is subject to change for improvements, computer displays may be different from those shown in this manual. In such cases, follow the computer displays for adjustment.
- 2. The computer displays may be different from those shown in this manual, depending on the destination of models and whether or not certain functions are provided. In such cases, follow the computer displays for adjustment.

2.3 Adjustment Condition

- 1. Check that the VCR section has been adjusted correctly before adjusting the camera section.
- 2. Use a light box with minimum flickering.
Control the color temperature of the light box strictly.
- 3. When using the video out (AV OUT) to perform adjustment, be sure to terminate the AV OUT jack with 75 ohms.
- 4. Place the light box approx. 30cm away from the camera (lens surface) when otherwise not specified.
- 5. Point the camera at the chart to full the video period when otherwise not specified.
- 6. Use the 10:1 probe of the oscilloscope when otherwise not specified.
- 7. When "Trigger the oscilloscope internally" is specified, set the time base of the oscilloscope to 10µs/div.

2.5 Check After Replacing Major Components in the Camera Section

After replacing major components, perform adjustments, referring to the table below.

The following table shows the minimum adjustments required after major components are replaced.

The table below may not apply when several components are replaced, depending on the symptom of the defect.

Caution: When EEPROM or the VCA circuit board is replaced, initialize the EEPROM, referring to "2.6.3 Initial Setting by Model" then perform all the camera section and system control/servo circuits adjustments.

Table 3-2

ITEM No.	NAME OF ADJUSTMENT	NAME OF MAJOR COMPONENTS									
		SE Circuit Board	VCA Circuit Board	IC1001	IC1102	IC1104	IC1105	IC1201	IC1401 IC1402 IC1403	Lens Block	
INITIAL SETTING BY MODEL			●				●				
ELECTRIC VOLUME ADJUSTMENT PROCEDURE											
(1)	CDS Smpling Pulse Adjustment		●		●		●				
DIGITAL ADJUSTMENT PROCEDURE											
(1)	Auto Iris Control Adjustment	●	●	●		●	●	●		●	
(2)	Matrix Adjustment	●	●	●			●				
(3)	White Balance Adjustment	●	●	●			●				
(4)	Chroma Gain Adjustment	●	●	●			●				
AUTOFOCUS ADJUSTMENT PROCEDURE											
(1)	Zoom Trace Adjustment	●	●				●			●	
(2)	AF Noise Level Adjustment	●	●				●			●	
STABILIZER ADJUSTMENT PROCEDURE		●	●				●		●		
SPOT NOISE ADJUSTMENT PROCEDURE		●	●				●				

2.6 Adjustment Procedure

- Notes:**
1. To complete adjustment, press the [ESC] (escape) key twice to restore the MS-DOS screen and then turn off the camera/recorder and jig.
 2. The following describes an example of the instructions of the personal computer and the menu display; they are different depending on the personal computer manufacturer and model. Refer to the instruction manual of personal computer.
 3. When the error message appears during adjustment, refer to "4. Error Message". If a key is pressed after an error message appears, the ADJUSTMENT MENU is restored.

2.6.1 Connections for Adjustment

Connect the camera/recorder, DSP jig, personal computer, power supply, etc. as shown in Fig. 1-1.

Check that the camera/recorder is turned on.

2.6.2 How to Start the MAP

- (1) Turn the personal computer on and start the MS-DOS system.

Note: Refer to the instruction manual of the personal computer for how to start computer.

- (2) Load the adjustment floppy disk in to disk drive A and press **A**: [ENTER]. (Display 2-1)

- (3) Press **MAP_IBM** [SPACE] **1** [ENTER]. (Display 2-2)

Note: When you use a personal computer with two serial interface connectors and connect the DSP jig to serial interface connector 2, press MAP_IBM 2.

- (4) Select the number according to the model.

(Display 2-3)

If [ESC] (escape) is pressed, the display before the MAP starts (MS-DOS) is restored.

Notes: 1. If the required model is not found, press the **P** key and select the model from the next screen.
2. If you select number without a model name by mistake, the message shown in "MESSAGE WHEN OPERATED BY MISTAKE" will appear in the computer's display (Display 2-4).
Press any key to return the display to MODEL SELECT display.

- (5) Press **Y** key. (Display 2-5)

If **N** key is pressed, the computer's display returns to MODEL SELECT display.

- (6) Refer to display 2-6.

2.6.3 Initial Setting by Model

Before Starting Initial Setting

1. This item describes how to initialize the EEP ROM. Be sure to perform this item after replacing EEP ROM or the VCA circuit board.

When other components are replaced, normally, it is not necessary to initialize the EEP ROM.

2. Be sure to perform the following adjustments after completing the initial setting.

2.6.4 Electric Volume Adjustment Procedure

2.6.5 Digital Adjustment Procedure

2.6.6 Autofocus Adjustment Procedure

2.6.7 Stabilizer Adjustment Procedure

2.6.8 Spot Noise Adjustment Procedure

2.8 LCD Display Adjustment

3.5 System Control/Servo Circuits Adjustment

- (1) Start the MAP.

- (2) Refer to display 2-6.

- (3) Press **A** key.

- (4) Refer to display 3-1.

- (5) Press **Y** key to start.
Press **N** to return to MAIN MENU display.

- (6) Perform adjustment according to the computer display hereafter.

See "4. Error Messages" if an error message appears on the computer display.

Display & Figs

Display 2-1

```
C>A:
A>
```

Display 2-2

```
C>
A>MAP_IBM 1
```

Display 2-3

```
*****
MODEL SELECT
*****
[1]      xxxxxxxx
[2]      xxxxxxxx
[3]      xxxxxxxx
[4]      xxxxxxxx
[5]      xxxxxxxx
[P]      NEXT SELECTION
[ESC]    END
Please select the type of the set.
Press [1] - [5] or [P] or [ESC]
```

Display 2-4

```
MESSAGE WHEN OPERATED BY
MISTAKE
```

```
CAN NOT FIND THE DATA FILE
**** PRESS ANY KEY ****
```

Display 2-5

```
Selected model is x x x x x x
Are you sure ? (Y/N)
```

Display 2-6

MAIN MENU

```
*****
MANUAL ADJUSTMENT PROGRAM
*****
[A]      DATA INITIALIZE
[B]      ELECTRIC VOLUME
[C]      ADJUSTMENT
[D]      VCR ADJUSTMENT
[E]      AUTO FOCUS
[F]      EIS
[G]      SPOT NOISE
[H]      LCD
[ESC]    END
Please select [A] - [H] or [ESC]
```

Display 3-1

```
« DATA WRITING »
START TO SEND DATA. (Y/N)
```

2.6.4 Electric Volume Adjustment Procedure

Before Starting Adjustment

When EEP ROM or the VCA circuit board is replaced, initialize the EEP ROM, referring to "2.6.3 Initial Setting By Model" then perform all the electric volume adjustments.

- (1) Start the MAP.
- (2) Refer to display 2-6.
- (3) Press **B** key.
- (4) Refer to display 4-1.

Notes: 1. If [ESC] (escape) is pressed, the computer's display returns to MAIN MENU display.
2. To complete adjustment, press the [ESC] (escape) key twice to restore the MS-DOS screen and then turn off the camera/recorder and jig.

(1) CDS Sampling Pulse Adjustment

Purpose:

To suppress noise in the CCD sensor output signal and maximize the signal level.

Incompleted Phenomenon:

Diagonal beats and horizontal noise occur.

Condition:

Leave the camera/recorder for more than 2 minutes until the circuits are stabilized after turing it on, then start adjustment.

Procedure:

- 1) Refer to display 4-1.
- 2) Press **1** key.
Perform adjustment according to the computer display hereafter.
See "4. Error Messages" if an error message appears on the computer display.

2.6.5 Digital Adjustment Procedure

Before Starting Adjustment

When EEP ROM or the VCA circuit board is replaced, initialize the EEP ROM, referring to "2.6.3 Initial Setting By Model" then perform all the digital adjustments.

- (1) Start the MAP.
- (2) Refer to display 2-6.
- (3) Press **C** key.
- (4) Refer to display 5-1.
- (5) Select the number of the required adjustment.

Notes: 1. If [ESC] (escape) is pressed, the computer's display returns to MAIN MENU display.
2. To complete adjustment, press the [ESC] (escape) twice to restore the MS-DOS screen and then turn off the camera/recorder and jig.

Display & Figs

Display 2-6

MAIN MENU

```
*****
MANUAL ADJUSTMENT PROGRAM
*****
[A]      DATA INITIALIZE
[B]      ELECTRIC VOLUME
[C]      ADJUSTMENT
[D]      VCR ADJUSTMENT
[E]      AUTO FOCUS
[F]      EIS
[G]      SPOT NOISE
[H]      LCD
[ESC]    END
Please select [A] - [H] or [ESC]
```

Display 4-1

ELECTRIC VOLUME ADJ. MENU

```
*****
ELECTRIC VOLUME
*****
[1]      CDS SAMPLING PULSE
[ESC]    RETURN TO MAIN MENU
Please select [1] or [ESC]
```

Display 5-1

ADJUSTMENT MENU

```
*****
ADJUSTMENT
*****
[1]      AUTO IRIS CONTROL
[2]      MATRIX
[3]      WHITE BALANCE
[4]      CHROMA GAIN
[ESC]    RETURN TO MAIN MENU
Please select [1]- [4] or [ESC]
```

(1) Auto Iris Control Adjustment

Purpose:

To set the iris control data.

Incompleted Phenomenon:

The picture becomes too bright.

The picture becomes too dark.

Condition:

Point the camera at the light box without a chart to full the screen (at wide-angle).

Procedure:

- 1) Refer to display 5-1.
- 2) Press **1** key.
Perform adjustment according to the computer display hereafter.
See "4. Error Messages" if an error message appears on the computer display.
- 3) Refer to display 5-2.
- 4) Press any key to return to ADJUSTMENT MENU display.
- 5) Turn the power off for 5 seconds and then on again.

Test Point:

Video Out (AV OUT)

Condition:

Attach a C12 filter.

Point at a color bar chart.

Procedure:

- 1) Refer to display 5-1.
- 2) Press **2** key.
- 3) Refer to display 5-3.

4) Model EA:

Press the **D** key to minimize the yellow (YEL) level.
Press the **U** key so the ratio between yellow (YEL) and blue (BLU) levels is 3:8.

Press the [Ctrl] key and hold it down, then press the **U** and **D** keys so the ratio between yellow (YEL) and blue (BLU) levels is 3:8.

Model HA:

Press the **D** key to minimize the yellow (YEL) level.
Press the **U** key so the ratio between yellow (YEL) and blue (BLU) levels is 1:6.

Press the [Ctrl] key and hold it down, then press the **U** and **D** keys so the ratio between yellow (YEL) and blue (BLU) levels is 1:6.

Model EE:

Press the **D** key to minimize the yellow (YEL) level.
Press the **U** key so the ratio between yellow (YEL) and blue (BLU) levels is 1:2.

Press the [Ctrl] key and hold it down, then press the **U** and **D** keys so the ratio between yellow (YEL) and blue (BLU) levels is 1:2.

(2) Matrix Adjustment (Fig. 2-1)

Purpose:

To compensate for unevenness in the chroma signal.

Incompleted Phenomenon:

Color reproduction becomes defective.

Equipment/Jig:

Oscilloscope

Display & Figs

Display 5-1

ADJUSTMENT MENU

```
*****
ADJUSTMENT
*****
[1]  AUTO IRIS CONTROL
[2]  MATRIX
[3]  WHITE BALANCE
[4]  CHROMA GAIN
[ESC] RETURN TO MAIN MENU
Please select [1]- [4] or [ESC]
```

Display 5-2

ADJUSTMENT FINISHED
PRESS ANY KEY

Display 5-3

```
« ADJUSTMENT OF BLUE MATRIX »
ROUGH ADJUSTMENT
[U]      UP
[D]      DOWN
      FINE ADJUSTMENT
[Ctrl] + [U]  UP
[Ctrl] + [D]  DOWN
[ENTER]      RETURN TO MENU
[ESC]        QUIT
```

Display 5-4

```
« ADJUSTMENT OF BLUE MATRIX »
DATA WRITING TO EEPROM
```

Display 5-5

```
« ADJUSTMENT OF BLUE MATRIX »
ADJUSTMENT FINISHED
PRESS ANY KEY
```

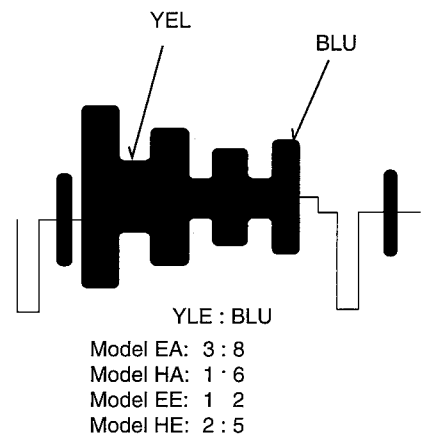


Fig. 2-1

Model HE:

Press the **D** key to minimize the yellow (YEL) level.
Press the **U** key so the ratio between yellow (YEL) and blue (BLU) levels is 2:5.
Press the [Ctrl] key and hold it down, then press the **U** and **D** keys so the ratio between yellow (YEL) and blue (BLU) levels is 2:5.

- 5) Press [Enter] key, and the display change as 5-4 and 5-5.
- 6) Press any key to return to ADJUSTMENT MENU display

(3) White Balance Adjustment

Purpose:

To set white balance under the color temperature which becomes a reference for the auto white balance circuit.

Incompleted Phenomenon:

Color of the subject is different from that of the picture.

A white subject is not seen as white.

Test Point:

Video Out (AV OUT)

Condition:

Attach a C12 filter.

Point at a gray scale chart (at wide-angle).

Procedure:

- 1) Refer to display 5-1.
- 2) Press **3** key.

- 3) Refer to display 5-6.

4) Model EA:

Press **1 9** to input the data.

Model HA:

Press **1 6** to input the data.

Model EE:

Press **1 3** to input the data.

Model HE:

Press **1 A** to input the data.

- 5) Press [Enter] key, and the display changes as follows.

- 6) Refer to display 5-7.

7) Model EA:

Press **0 (ZERO) B** to input the data.

Model HA:

Press **0 (ZERO) D** to input the data.

Model EE:

Press **1 0 (ZERO)** to input the data.

Model HE:

Press **1 7** to input the data.

- 8) Press [Enter] key.
Perform adjustment according to the computer display hereafter.
See "4. Error Messages" if an error message appears on the computer display.

(4) Chroma Gain Adjustment (Figs. 2-2, 2-3, 2-4)

Purpose:

To set the color saturation under the reference color temperature.

Incompleted Phenomenon:

Color of the picture is denser than that of the subject.

Color of the picture is lighter than that of the subject.

Equipment/Jig:

Oscilloscope (Vectorscope)

Test Point:

Video Out (AV OUT)

Condition:

Attach a C12 filter.

Point at a color bar chart.

Procedure:

- 1) Refer to display 3-5.
- 2) Press **4** key.

Display & Figs

Display 5-1

ADJUSTMENT MENU

```
*****
          ADJUSTMENT
*****
[1]  AUTO IRIS CONTROL
[2]  MATRIX
[3]  WHITE BALANCE
[4]  CHROMA GAIN
[ESC] RETURN TO MAIN MENU
      Please select [1]- [4] or [ESC]
```

Display 5-6

```
« WHITE BALANCE ADJUSTMENT »
INPUT DATA OF OFFSET
                        FOR R-B --> 00
```

Display 5-7

```
« WHITE BALANCE ADJUSTMENT »
INPUT DATA OF OFFSET
                        FOR Mg-G --> 00
```

3) Refer to display 5-8.

4) When Using an Oscilloscope:

Press the **U** and **D** keys to set the red level to around 450mVp-p.

Press the [Ctrl] key and hold it down, then press the **U** and **D** keys so the red level is 450mV $\pm$ 20mVp-p. (Fig. 2-2)

When Using a Vectorscope:

Press the **U** and **D** keys to set the red vector to around 160% of the burst.

Press the [Ctrl] key and hold it down, then press the **U** and **D** keys so the red vector is 160% $\pm$ 5%. (Figs. 2-3, 2-4)

5) Press [Enter] key, and the display changes as 5-9 and 5-10.

6) Press any key to return to ADJUSTMENT MENU display.

2.6.6 Autofocus Adjustment Procedure

Before Starting Adjustment

Be sure to perform this adjustment after replacing or initializing the lens block or VCA circuit board (EEPROM).

(1) Start the MAP.

(2) Refer to display 2-6.

(3) Press **E** key.

(4) Refer to display 6-1.

(5) Select the number of the required adjustment.

Note: To complete adjustment, press the [ESC] (escape) twice to restore the MS-DOS screen and then turn off the camera/recorder and jig.

Display & Figs

Display 5-8

```
« ADJUSTMENT OF CHROMA GAIN »
  ROUGH ADJUSTMENT
[U]  CHROMA GAIN UP
[D]  CHROMA GAIN DOWN
      FINE ADJUSTMENT
[Ctrl] + [U] CHROMA GAIN UP
[Ctrl] + [D] CHROMA GAIN DOWN
[ENTER] SAVE & RETURN TO MENU
[ESC]  QUIT
```

Display 5-9

```
« ADJUSTMENT OF CHROMA GAIN »
  DATA WRITING INTO EEPROM.
```

Display 5-10

```
« ADJUSTMENT OF CHROMA GAIN »
  ADJUSTMENT FINISHED.
  PRESS ANY KEY.
```

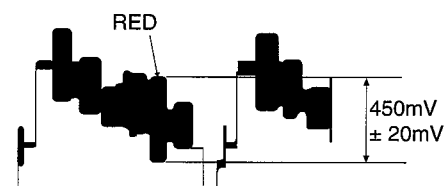


Fig. 2-2

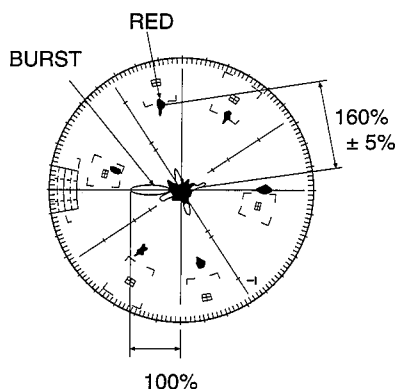


Fig. 2-3 [Model EA, HA]

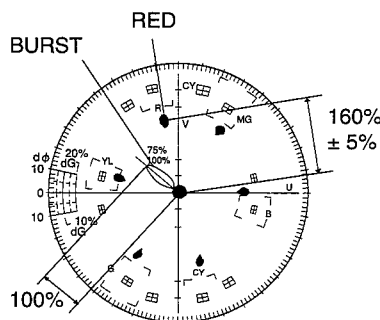


Fig. 2-4 [Model EE, HE]

Display 2-6

MAIN MENU

```
*****
MANUAL ADJUSTMENT PROGRAM
*****
[A]  DATA INITIALIZE
[B]  ELECTRIC VOLUME
[C]  ADJUSTMENT
[D]  VCR ADJUSTMENT
[E]  AUTO FOCUS
[F]  EIS
[G]  SPOT NOISE
[H]  LCD
[ESC] END
Please select [A] - [H] or [ESC]
```

Display 6-1

AF ADJ. MENU

```
*****
AUTO FOCUS ADJUSTMENT
*****
[1]  ADJUSTMENT OF ZOOM/
      FOCUS TRACKING
[2]  ADJUSTMENT OF
      AF NOISE LEVEL
[ESC] RETURN TO MENU
Please select [1], [2] or [ESC]
```

(1) Zoom Trace Adjustment

Purpose:

To set the out-of-focus correction level during zooming.

Incompleted Phenomenon:

Focus is lost during zooming.

Equipment/Jig:

Color Video Monitor

Backfocus Chart

Test Point:

Video Out (AV OUT)

Condition:

Point at the backfocus chart, 1500 ± 5 mm away from the lens surface.

Light the chart with 200-400 lux.

Caution When Adjustment:

- 1) Measure the distance between the chart and lens surface precisely.
- 2) Place the chart as parallel as possible to the lens surface.
- 3) The backfocus chart should always be at the center of the monitor screen when the zoom is set to the wide-angle and telephoto ends.
- 4) The zoom trace adjustment procedure is completed within 2 minutes after it is selected.
- 5) Do not place any obstruction between the lens and chart during adjustment.

Procedure:

- 1) Refer to display 6-1.
- 2) Press **1** key.
Perform adjustment according to the computer display hereafter.
See "4. Error Messages" if an error message appears on the computer display.

(2) AF Noise Level Adjustment

Purpose:

To set the noise level in the autofocus circuit.

Incompleted Phenomenon:

It takes time until a subject is brought into focus.

Correct focus is not obtained.

Equipment/Jig:

Color Video Monitor

Test Point:

Video Out (AV OUT)

Condition:

Set the focus to AUTO.

Point at a light box without a chart inserted at a distance of up to 10cm.

Caution When Adjustment:

- 1) Place the light box as parallel as possible to the lens surface.
- 2) The AF noise level adjustment procedure will be completed within thirty seconds after it is selected.

Procedure:

- 1) Refer to display 6-1.
- 2) Press **2** key.
Perform adjustment according to the computer display hereafter.
See "4. Error Messages" if an error message appears on the computer display.

Display & Figs

Display 6-1

AF ADJ. MENU

```
*****
  AUTO FOCUS ADJUSTMENT
*****
[1]  ADJUSTMENT OF ZOOM/
      FOCUS TRACKING
[2]  ADJUSTMENT OF
      AF NOISE LEVEL
[ESC] RETURN TO MENU
      Please select [1], [2] or [ESC]
```

2.6.7 Stabilizer Adjustment Procedure

Before Starting Adjustment

1. Be sure to perform this adjustment after replacing or initializing the SE circuit board and VCA circuit board (EEPROM).
2. This item describes how to rewrite the stabilizer data. The average of the stabilizer data will be written.

- (1) Start the MAP.
- (2) Refer to display 2-6.
- (3) Press **F** key.
- (4) Refer to display 7-1.
- (5) Press **Y** key.
- (6) Refer to display 7-2.
- (7) The stabilizer data is rewritten automatically.
- (8) Press any key to return to MAIN MENU display.

Note: To complete adjustment, press the [ESC] (escape) key twice to restore the MS-DOS screen and then turn off the camera/recorder and jig.

2.6.8 Spot Noise Adjustment Procedure

Before Starting Adjustment

1. The spot noise is identified as the fine white noise that appears when the lens cap is attached after the power is turn on.
2. Perform this adjustment only for products with which spot noise occurs. (However, there is no problem even if products free from spot noise are adjusted.)
3. After replacing the CCD image sensor or VCA circuit board (EEPROM), check whether or not spot noise occurs and then proceed with adjustment.

- (1) Start the MAP.
- (2) Refer to display 2-6.
- (3) Cap the lens.
- (4) Connect the color video monitor to video out.
- (5) Press **G** key.
Perform adjustment according to the computer display hereafter.
See "4. Error Messages" if an error message appears on the computer display.

Note: To complete adjustment, press the [ESC] (escape) key twice to restore the MS-DOS screen and then turn off the camera/recorder and jig.

Display & Figs

Display 2-6

MAIN MENU

```
*****
MANUAL ADJUSTMENT PROGRAM
*****
[A]      DATA INITIALIZE
[B]      ELECTRIC VOLUME
[C]      ADJUSTMENT
[D]      VCR ADJUSTMENT
[E]      AUTO FOCUS
[F]      EIS
[G]      SPOT NOISE
[H]      LCD
[ESC]    END
Please select [A] - [H] or [ESC]
```

Display 7-1

```
« DATA WRITING »
START TO SEND DATA (Y/N)
```

Display 7-2

```
FINISHED WRITING DATA.
PRESS ANY KEY
```

2.7 CRT B/W Electronic Viewfinder (EVF) Adjustment

Note: Picture appears on the EVF only when the LCD monitor is close.

2.7.1 Adjustment Procedure

(1) Deflection Yoke Position, EVF Centering Adjustment (Fig. 2-51)

Purpose:

This adjustment procedure eliminates picture tilt in the EVF display.

This adjustment centers the image observed by the camera in the EVF display.

Equipment/Jig:

EVF Display

Condition:

Aim the resolution chart

Adjustment Point:

Deflection Yoke (Deflection Yoke Position)
Centering Magnets (EVF Centering)

Procedure:

Deflection Yoke Position:

- 1) Loosen the deflection yoke nut.
- 2) Turn the deflection yoke so that the EVF picture (chart) is horizontal, matching the edges of the CRT.

Note: After adjustment is completed, tighten the deflection yoke nut.

EVF Centring:

- 1) Remove the locking paint from the centring magnet.
- 2) Adjust the centring magnets until the center of the picture viewed by the camera is positioned in the center of the EVF display.

(2) EVF Vertical Size Adjustment (Fig. 2-52)

Purpose:

This adjustment determines the vertical size of the image appearing in the EVF display.

Equipment/Jig:

EVF Display

Condition:

Aim the resolution chart

Adjustment Point:

RT2003 (V.SIZE) on the EMQ Circuit Board

Procedure:

- 1) RT2003: Set the top and bottom edges of the chart match the top and bottom edges of the CRT.

(3) EVF Brightness Adjustment (Fig. 2-52)

Purpose:

This adjustment sets the brightness of the picture in the EVF display.

Equipment/Jig:

EVF Display

Condition:

Aim the resolution chart

Adjustment Point:

RT2002 (BRIGHT) on the EMQ Circuit Board

Procedure:

- 1) RT2002: Set to optimize the EVF picture.

(4) EVF Focus Adjustment (Fig. 2-52)

Purpose:

This control adjusts for optimum focus of the electronic viewfinder picture.

Equipment/Jig:

EVF Display

Condition:

Aim the resolution chart

Adjustment Point:

RT2001 (FOCUS) on the EMQ Circuit Board

Procedure:

- 1) RT2001: Set the EVF picture is clear.

Display & Figs

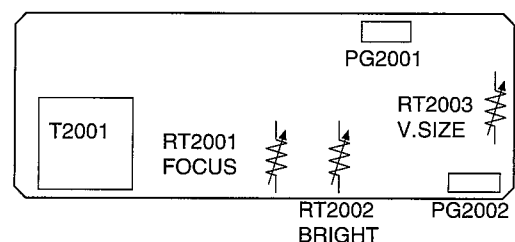
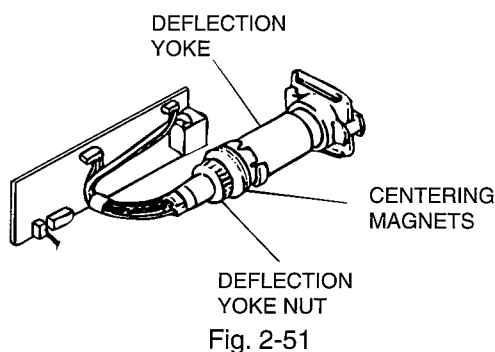


Fig. 2-52 EMQ Circuit Board (Side-B)

Procedure:

- 1) Refer to display 8-1.
- 2) Press **4** key.
- 3) Refer to display 8-2.
- 4) Press the **U** and **D** keys so the level at section (A) of the waveform is $4.0V \pm 0.05V_{p-p}$ (the same level as in the RGB gain adjustment). (See Fig. 2-103)
- 5) After setting is completed, press the [RETURN (ENTER)] key.

(5) Sub Bright R Adjustment (Fig. 2-103)

Purpose:

To set the white balance of the LCD screen together with the sub bright B adjustment:

Incompleted Phenomenon:

White is seen as bluish or reddish.

Equipment/Jig:

Oscilloscope

Test Point:

PG5301-5

PG5301-8 (GND)

Procedure:

- 1) Refer to display 8-1.
- 2) Press **5** key.
- 3) Refer to display 8-2.
- 4) Press the **U** and **D** keys so the level at section (A) of the waveform is $4.0V \pm 0.05V_{p-p}$ (the same level as in the RGB gain adjustment). (See Fig. 2-103)

- 5) After setting is completed, press the [RETURN (ENTER)] key.

(6) Contrast Adjustment (Fig. 2-104)

Purpose:

To adjust the maximum amplitude of RGB output:

Incompleted Phenomenon:

Contrast is abnormal.

Equipment/Jig:

Oscilloscope

Test Point:

PG5301-3

PG5301-8 (GND)

Procedure:

- 1) Refer to display 8-1.
- 2) Press **6** key.
- 3) Refer to display 8-2.
- 4) Press the **U** and **D** keys so the level at section (B) of the waveform is $2.1V \pm 0.02V_{p-p}$. (See Fig. 2-104)
- 5) After setting is completed, press the [RETURN (ENTER)] key.

(7) Common Amp Gain Adjustment (Fig. 2-105)

Purpose:

To adjust the brightness of the LCD screen:

Incompleted Phenomenon:

Picture is too bright or too dark.

Equipment/Jig:

Oscilloscope

Display & Figs

Display 8-1

LCD ADJ. MENU

```
*****
LCD ADJUSTMENT
*****
[1]    PLL VCO
[2]    H. POSITION
[3]    RGB GAIN
[4]    sub B
[5]    sub R
[6]    CONTRAST
[7]    COM
[8]    BURST CLEAR
[9]    FLICKER
[ESC]  RETURN TO MENU
Please select [1] - [9] or [ESC]
```

Display 8-2

```
*****
                xxxxxxxx
*****
[U]      UP
[D]      DOWN
[RETURN] SAVE & RETURN TO MENU
[ESC]    RETURN TO MENU
Please select [U], [D],
           [RETURN] or [ESC]
```

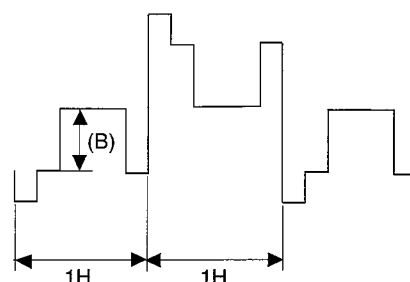


Fig. 2-104

Test Point:

PG5301-6

PG5301-8 (GND)

Procedure:

- 1) Refer to display 8-1.
- 2) Press **7** key.
- 3) Refer to display 8-2.
- 4) Press the **U** and **D** keys so the level at section (C) of the waveform is $6.5V \pm 0.2V_{p-p}$. (See Fig. 2-105)
- 5) After setting is completed, press the [RETURN (ENTER)] key.

(8) Burst Cleaning Adjustment [Model EE, HE]**Purpose:**

To adjust chroma phase:

Incompleted Phenomenon:

Horizontal line noise appears in the scene with high saturation.

Equipment/Jig:

Oscilloscope

Test Point:

PG5301-5

PG5301-8 (GND)

Procedure:

- 1) Refer to display 8-1.
- 2) Press **8** key.
- 3) Refer to display 8-2.

- 4) Press the **U** and **D** keys to align the R signal levels at each H. (The waveform will not stabilize unless the levels match.)
- 5) After setting is completed, press the [RETURN (ENTER)] key.

(9) Flicker Adjustment**Purpose:**

To minimize flickering on the LCD screen:

Incompleted Phenomenon:

Flickering is present in the picture.

Condition:

Set the CAM/OFF/VIDEO switch to VIDEO position.

Load the alignment tape and it the playback (color bar section).

Procedure:

- 1) Refer to display 8-1.
- 2) Model EA, HA:
Press **8** key.
Model EE, HE:
Press **9** key.
- 3) Refer to display 8-2.
- 4) Press the **U** and **D** keys until the picture on the LCD screen is optimal quality.
- 5) After setting is completed, press the [RETURN (ENTER)] key.

Display & Figs**Display 8-1****LCD ADJ. MENU**

```

*****
LCD ADJUSTMENT
*****
[1]    PLL VCO
[2]    H. POSITION
[3]    RGB GAIN
[4]    sub B
[5]    sub R
[6]    CONTRAST
[7]    COM
[8]    BURST CLEAR
[9]    FLICKER
[ESC]  RETURN TO MENU
Please select [1] - [9] or [ESC]

```

Display 8-2

```

*****
XXXXXXXX
*****
[U]    UP
[D]    DOWN
[RETURN] SAVE & RETURN TO MENU
[ESC]  RETURN TO MENU
Please select [U], [D],
          [RETURN] or [ESC]

```

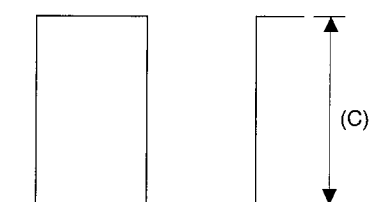
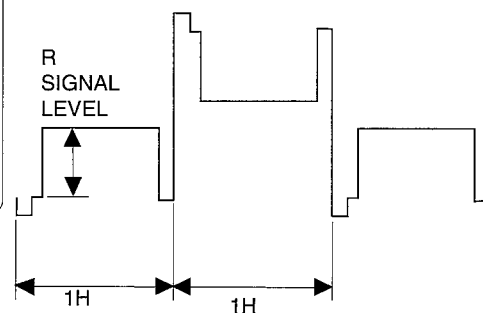


Fig. 2-105



Note: Waveform may not invert every H because of the thinning-out period.

Fig. 2-106

3. VCR SECTION ADJUSTMENT

3.1 Test Equipment and Alignment Tapes Necessary for Adjustment

Test Equipment

Digital Voltmeter (DVM)
Color Video Monitor
DC Power Supply (DC 0 - 7V/3A)
DC Power Supply (DC 5V/1A)

Alignment Tape, etc.

Adjustment Floppy Disk
Personal Computer
Personal Computer 9-pin or 25-pin (RS232C) Cable
DSP-R Jig
DSP AV Output Jig
ODC DC Cord
Alignment Tape
Blank Tape

3.2 Adjustment Condition

1. Check that the camera, LCD monitor and EVF sections has been adjusted correctly before adjusting the VCR section.
2. Connect this unit, a power supply and a color video monitor as shown in Fig. 1-1.
3. Use the 10:1 probe of the oscilloscope when other not specified.
4. When "Record mode" is specified, load a blank tape and set the 8mm video camera/recorder to the record mode by the following procedure.
 - 1) Set the CAM/OFF/VCR switch to the CAM position.
 - 2) Press the REC START/STOP button on the unit (or REC START/STOP button on the remote control).
5. Earth of test equipment: Pre-Amp Shield (GND).

Caution:

1. This camera/recorder will not perform the eject operation unless the LCD monitor is open. To set it to the eject state with the case dismantled, short PG905 pins 1 and 2 on the VCA board with a shorting clip, etc., and then press the EJECT button.

3.3 Preset Positions of Switches and Controls During Adjustment

CAM/OFF/VIDEO switch "VCR" position
TITLE Not Display mode

3.4 Check After Replacing Major Components in the VCR Section

After replacing major components, perform checks, referring to the table below.

The following table shows the minimum adjustments required after major components are placed.

The table below may not apply when several components are replaced, depending on the symptom of the defect.

Caution: After replacing the parts, check each adjustment. If you find the items necessary to be adjusted, remove the corresponding laser trimming resistors and replace them with variable resistors for adjustment.

ITEM No.	NAME OF ADJUSTMENT	NAME OF MAJOR COMPONENTS		
		VCA Circuit Board	Cylinder	IC901
SYSTEM CONTROL/SERVO CIRCUITS ADJUSTMENT				
(1)	Power Shut Off level Adjustment	●		●
(2)	Head Switching Point Adjustment	●	●	●

3.5 System Control/Servo Circuits Adjustment

Before Starting Adjustment

1. System control/servo circuits adjustment also needs a personal computer. Connect the camera/recorder, jigs, power supply, etc. in the same way as in camera section adjustment.
2. Be sure to perform this adjustment after replacing or initializing the EEP ROM and VCA circuit board.
3. When an error message appears during adjustment, refer to "4. Error Message".
4. If [ESC] (escape) is pressed, the computer's display returns to MAIN MENU display.
5. To complete adjustment, press to [ESC] (escape) key twice to restore the MS-DOS screen and then turn off the camera/recorder and jigs.

- (1) Start the MAP.
- (2) Refer to display 2-6.
- (3) Press **D** key.
- (4) Refer to display 9-1.
- (5) Select the number of the required adjustment.

Equipment/Jig:

DVM
DC Power Supply (0 - 7V)
Blank Tape
ODC DC Cord

Condition:

Connect the camera, LCD monitor and EVF sections.
Supply power ($8.0V \pm 0.5V$) to DC IN via ODC DC cord.
LCD monitor open. (LCD ON)
Cap the lens.
Load the blank tape.

Procedure:

- 1) Refer to display 9-1.
- 2) Press **1** key.
- 3) Refer to display 9-2.
- 4) Set the voltage of the power supply to $5.8V \pm 0.05V$.
- 5) Press any key.
- 6) Refer to display 9-3.
- 7) Press any key to return to VCR ADJ. MENU display.

(1) Power Shut Off Level (ODC: Over Discharge Control) Adjustment

Purpose:

To set the minimum voltage required to operate the camera/recorder.

Incompleted Phenomenon:

The usable time of the battery becomes short.
The camera/recorder doesn't operate normally.

Display & Figs

Display 2-6

MAIN MENU

***** MANUAL ADJUSTMENT PROGRAM *****

[A]	DATA INITIALIZE
[B]	ELECTRIC VOLUME
[C]	ADJUSTMENT
[D]	VCR ADJUSTMENT
[E]	AUTO FOCUS
[F]	EIS
[G]	SPOT NOISE
[H]	LCD
[ESC]	END

Please select [A] - [H] or [ESC]

Display 9-1

VCR ADJ. MENU

***** VCR ADJUSTMENT *****

[1]	ADJUSTMENT OF ODC
[2]	ADJUSTMENT OF SWITCHING POINT
[ESC]	RETURN TO MAIN MENU

Please select [1], [2] or [ESC]

Display 9-2

« SET UP OF ODC
ADJUSTMENT STARTED »
PRESET POSITION OF
'CAMERA/OFF/VCR' SWITCH
'VCR' POSITION
SET POWER SOURCE AT 5.8 (+/- 0.05)

Display 9-3

« SETUP OF ODC
ADJUSTMENT COMPLETED »
« ODC ADJUSTMENT STARTED »
« ODC ADJUSTMENT COMPLETED »
PRESS ANY KEY.

(2) Head Switching Point Adjustment

Note: Be sure to perform this adjustment after replacing the cylinder assembly and VCA circuit board.

Purpose:

To set the switching point of the video heads during playback.

Incompleted Phenomenon:

Vertical jitter occurs.

Switching noise appears across the bottom of the monitor screen.

Equipment/Jig:

Alignment Tape

Condition:

Playback the alignment tape.

Procedure:

- 1) Refer to display 9-1.
- 2) Press **2** key.
- 3) Refer to displays 9-4, 9-5 and 9-6.
- 4) Press any key to return to VCR ADJ. MENU display.
- 5) Turn the power off.

Display & Figs

Display 9-1

VCR ADJ. MENU

```
*****
                        VCR ADJUSTMENT
*****
[1]  ADJUSTMENT OF ODC
[2]  ADJUSTMENT OF
      SWITCHING POINT
[ESC] RETURN TO MAIN MENU
      Please select [1], [2] or [ESC]
```

Display 9-4

```
« ADJUSTMENT OF
  SWITCHING POINT »
PRESET POSITIONS OF
'CAMERA/OFF/VCR' SWITCH
'VCR' POSITION
PRESS ANY KEY
```

Display 9-5

```
SET UP OF SW POINT
  ADJUSTMENT STARTED.
SET UP OF SW POINT
  ADJUSTMENT COMPLETED.
SW POINT ADJUSTMENT STARTED.
```

Display 9-6

```
SW POINT ADJUSTMENT
  DATA CHEACKING.
FINISHED WRITING DATA.
ADJUSTMENT FINISHED.
PRESS ANY KEY
```

4. ERROR MESSAGE

4.1 Camera Electric Volume and Digital Adjustments

ERROR MESSAGE	COUNTERMEASURE
ERROR OCCURRED. IRIS TROUBLE PRESS ANY KEY	• Check whether or not power is supplied. • Check the values of the iris drive circuit. • Defective soldering, damage to pattern, etc. in the above circuit. • Check the iris block and replace it if necessary.
ERROR OCCURRED ON da $\times$ ADJUSTMENT PRESS ANY KEY	• Check the values in the hall amp circuit. • Defective soldering, damage to pattern, etc. in the above circuit.
D RANGE OVER. ERROR ON da $\times$ ADJUSTMENT PRESS ANY KEY.	• Check the values in the hall amp circuit. • Defective soldering, damage to pattern, etc. in the above circuit.
ERROR OCCURRED ON da0 and da1 ADJUSTMENT PRESS ANY KEY	• Check the values in the hall amp circuit and its peripheral circuits. • Defective soldering, damage to pattern, etc. in the above circuits.
FILE NOT FOUND !!!! PRESS ANY KEY	• The adjustment program (file) cannot be found. • Check the adjustment floppy disk and replace it if necessary.
FILE OPEN ERROR !!!! PRESS ANY KEY	• The adjustment program (file) does not start. • Check the adjustment floppy disk and replace it if necessary.

ERROR MESSAGE	COUNTERMEASURE
ERROR OCCURRED ON C DUTY ADJUSTMENT PRESS ANY KEY	- Check the values of the iris drive circuit. - Defective soldering, damage to pattern, etc. in the above circuit.
ERROR OCCURRED ON FDET ADJUSTMENT PRESS ANY KEY	- Supply power again and re-adjust. - Check the values in the hall amp circuit. - Defective soldering, damage to pattern, etc. in the above circuit.
ERROR OCCURRED. ZOOM DOES NOT WORK PRESS ANY KEY	Supply power again and re-adjust.
TOO BRIGHT PRESS ANY KEY	- The subject is too bright. - Move the camera further away from the light box.
TOO DARK PRESS ANY KEY	- The subject is too dark. - Check the light box. - Move the camera closer to the light box.
D RANGE OVER ERROR ON HALL AMP IRIS CANNOT OPEN ANY MORE PRESS ANY KEY	- Supply power again and re-adjust. - The subject is too dark. - Check the light box. - Move the camera closer to the light box. - Check the values in the hall amp circuit. - Defective soldering, damage to pattern, etc. in the above circuit.
STAURATION ERROR. TOO BRIGHT PRESS ANY KEY	- The subject is too bright. - Move the camera further away from the light box.
CAN'T ADJUST WHITE BALANCE PLEASE RETRY PRESS ANY KEY	- The subject is too bright or too dark. - Check the light box. - Move the camera closer to or away from the light box. - Supply power again and re-adjust.

4.2 Autofocus Adjustment

ERROR MESSAGE	COUNTERMEASURE
TIME OUT ERROR ON FOCUS	- Check the conditions of subject. - If this error message appears even when the adjustment is performed 2 or 3 times, the autofocus circuit system is defective. - Refer to (1) of TROUBLESHOOTING OF AUTOFOCUS.
TIME OUT ERROR ON ZOOM	- If this error message appears even when the adjustment is performed 2 or 3 times, the autofocus circuit system is defective. - Refer to (2) of TROUBLESHOOTING OF AUTOFOCUS.
TIME OUT ERROR ON AF STEP	- Check the conditions of subject. - If this error message appears even when the adjustment is performed 2 or 3 times, the autofocus circuit system is defective. - Refer to (1) of TROUBLESHOOTING OF AUTOFOCUS.
AF LIMIT OVER	- Check the conditions of subject. - If this error message appears even when the adjustment is performed 2 or 3 times, the autofocus circuit system is defective. - Refer to (2) of TROUBLESHOOTING OF AUTOFOCUS.
AF ERROR	- If this error message appears even when the adjustment is performed 2 or 3 times, the autofocus circuit system is defective. - Refer to (1) of TROUBLESHOOTING OF AUTOFOCUS.
TOO DARK	Insufficient lighting. Check the subject.

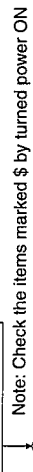
4.3 Spot Noise Adjustment

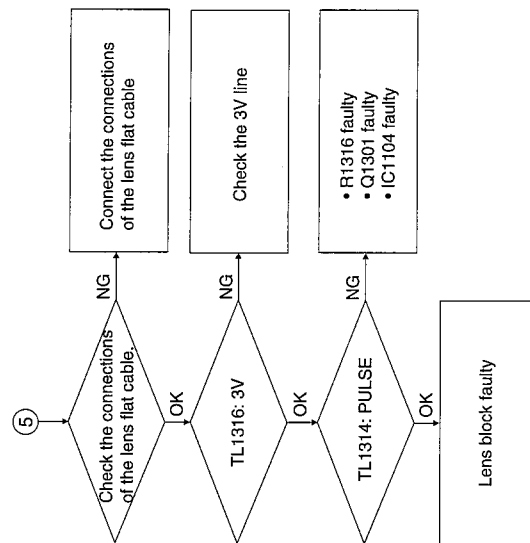
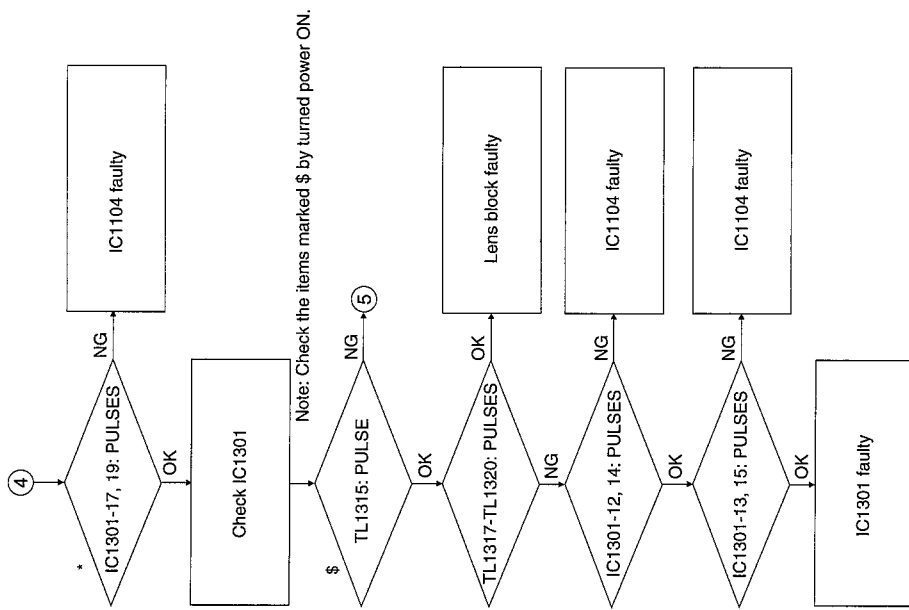
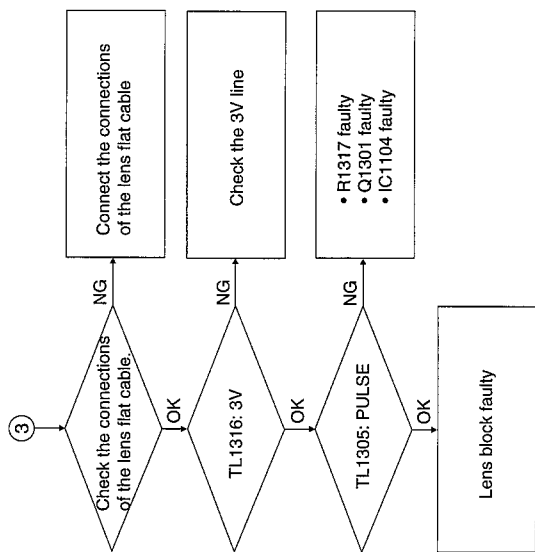
ERROR MESSAGE	COUNTERMEASURE
ERROR!! SPOT NOISE COMPENSATION IS STOPPED BY INITIAL DATA. PLEASE CHECK THE EEPROM. PRESS ANY KEY.	- Spot noise compensation is inhibited by the data in the EEPROM. - Turn the power on again. - Data in the EEPROM is defective. (Initialize it.) - Check the EEPROM, and if necessary, replace it.
ERROR!! THRESHOLD DATA ERROR. PLEASE CHECK THE EEPROM. PRESS ANY KEY.	- Turn the power on again. - Data in the EEPROM is defective. (Initialize it.) - Check the EEPROM, and if necessary, replace it.
ERROR!! THE SPOT NOISE IS TOO MANY. CAN'T COMPENSATE ANY MORE. PRESS ANY KEY.	- The amount of spot noise that can be compensated reaches the limit. - Turn the power on again. - Check the CCD image sensor, and if necessary, replace it.

4.4 VCR Adjustment

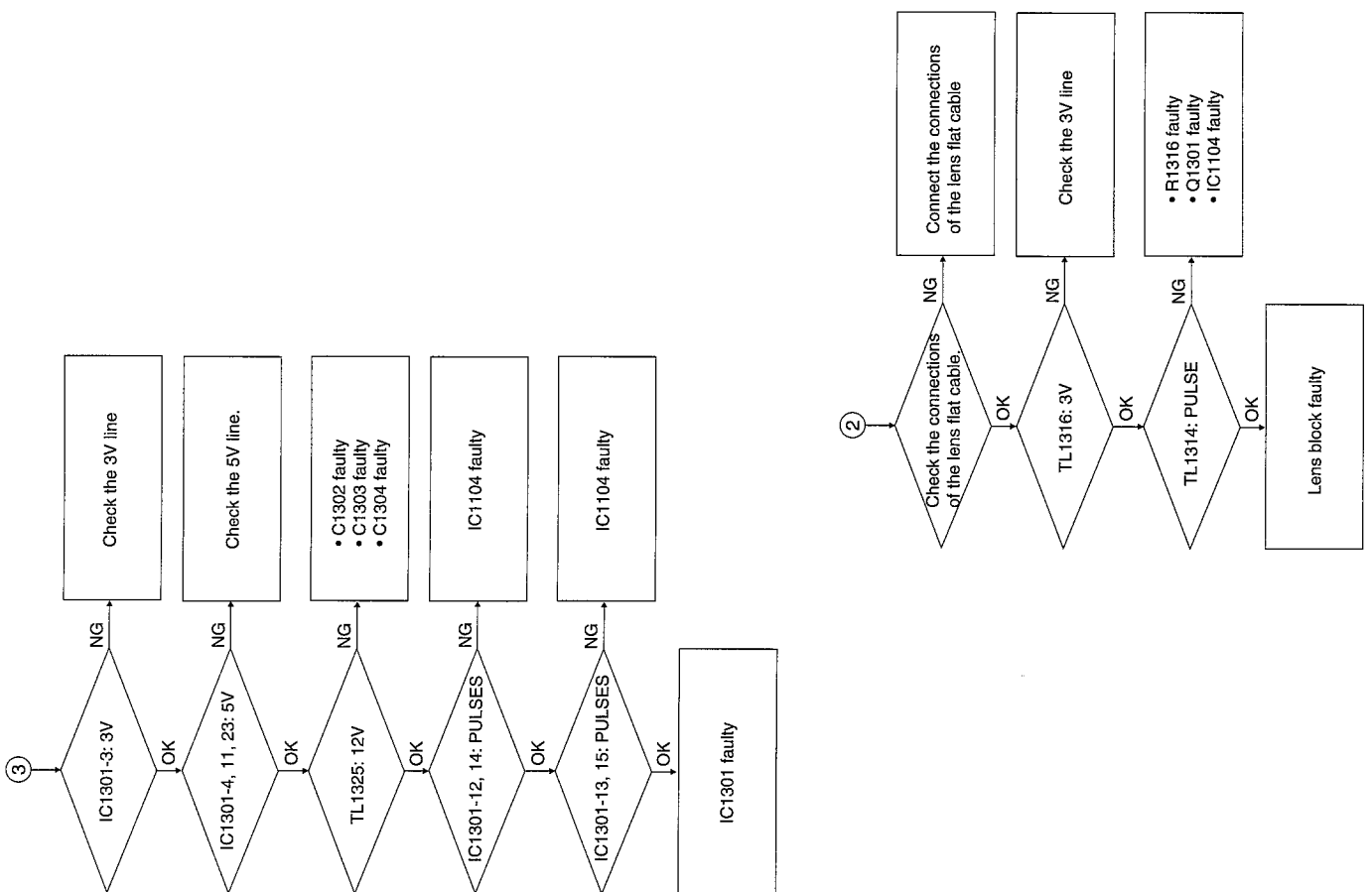
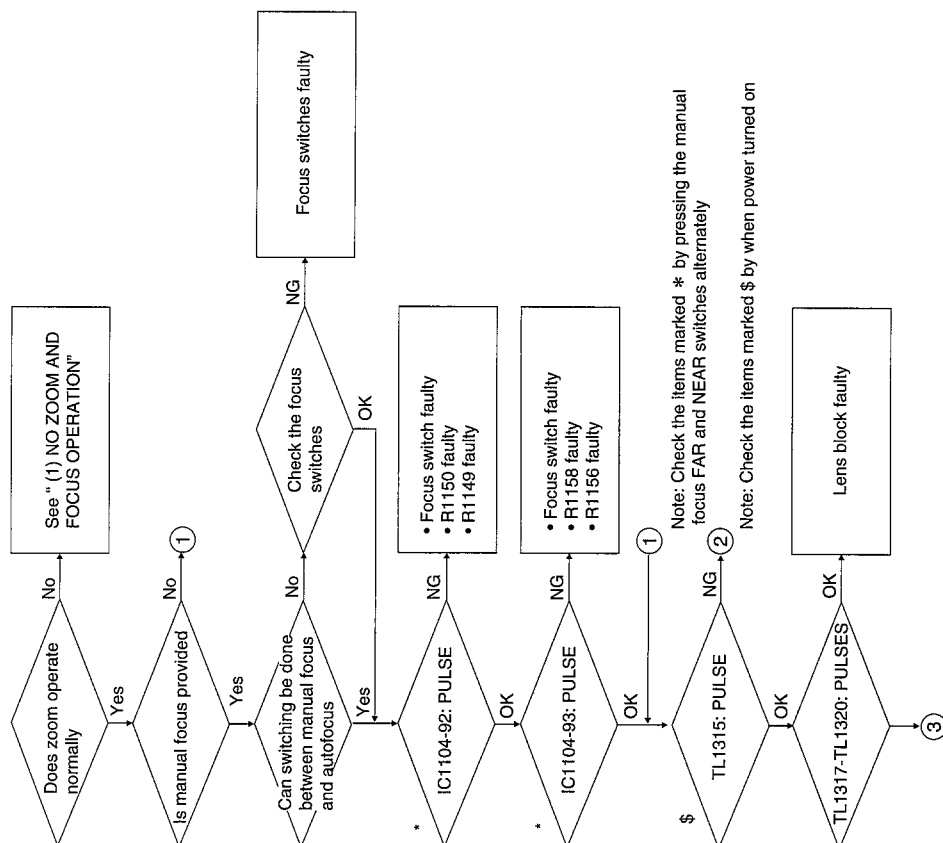
ERROR MESSAGE	COUNTERMEASURE
ERROR: SWP_TEST>DAT FILE NOT FOUND!	- The adjustment program cannot be found. - Check the adjustment floppy disk and replace it if necessary.
ERROR: INVALID MODEL PRESS ANY KEY	- A wrong model has been selected. - The adjustment program cannot be found. - Check the adjustment floppy disk and replace it if necessary.
THIS MODEL NEED NOT BE ADJUSTED PRESS ANY KEY	- A wrong model has been selected. - A product that needs analog adjustment is connected.
ADJUSTMENT INCOMPLETED PRESS ANY KEY	- The value set by adjustment defective. - Re-adjust. - Check cylinder. - Check the alignment tape. - Check whether or not the usual operation is done correctly.
RETRY ADJUSTING. PRESS ANY KEY	Supply power again and re-adjust.
CAMERA IS NOT READY	Check whether or not power is supplied.
ERROR OCCURRED CAN'T PLAY BACK PRESS ANY KEY	- No playback video. - Check the playback signal.
ERROR OCCURRED NO V.SYNC FOUND PRESS ANY KEY	- Vertical sync loss. - Check the vertical sync signal.
INVALID MODEL PRESS ANY KEY	- A wrong model has been selected. - The adjustment program cannot be found. - Check the adjustment floppy disk and replace it if necessary.
ERROR OCCURRED CAN'T RECORD PRESS ANY KEY	- No video recording. - Check the recording signal.

(1) NO ZOOM AND FOCUS OPERATION

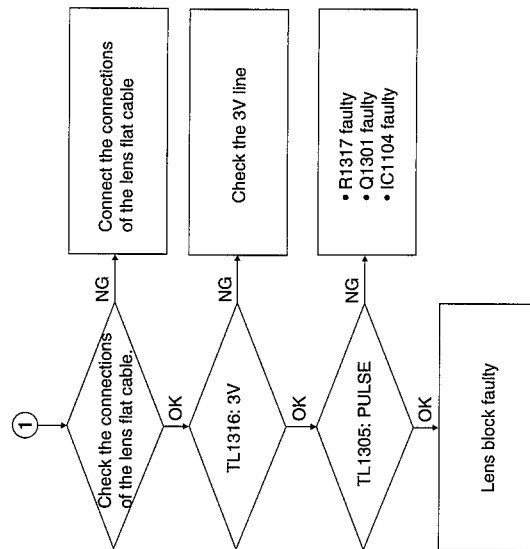
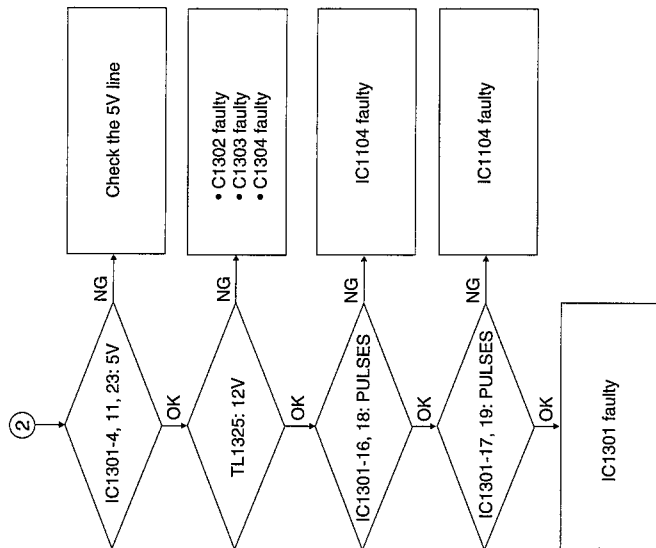
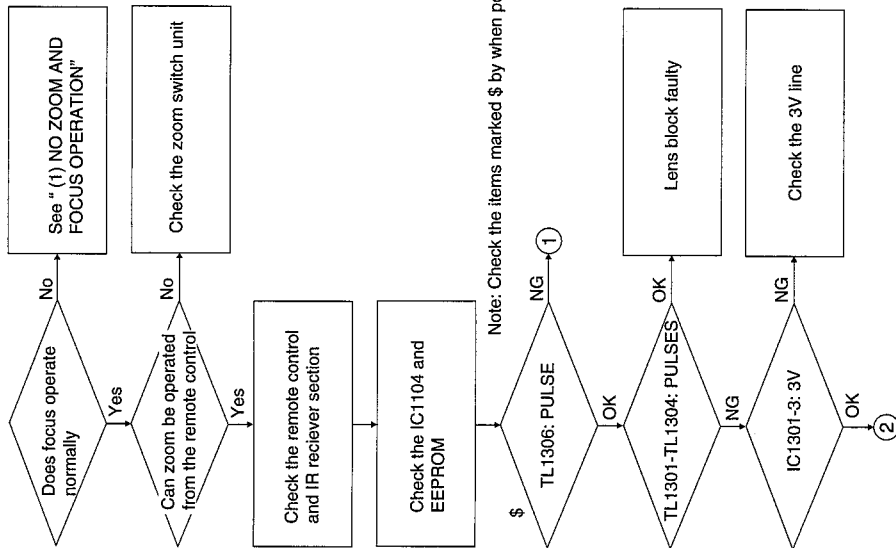




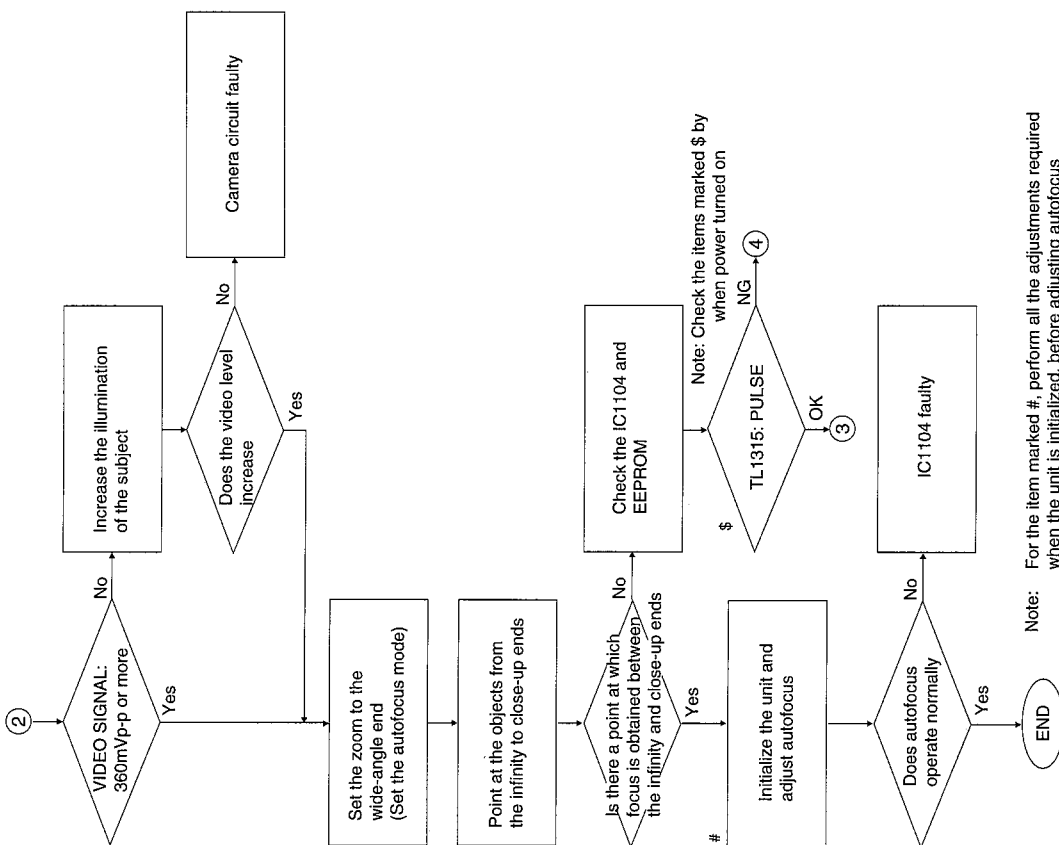
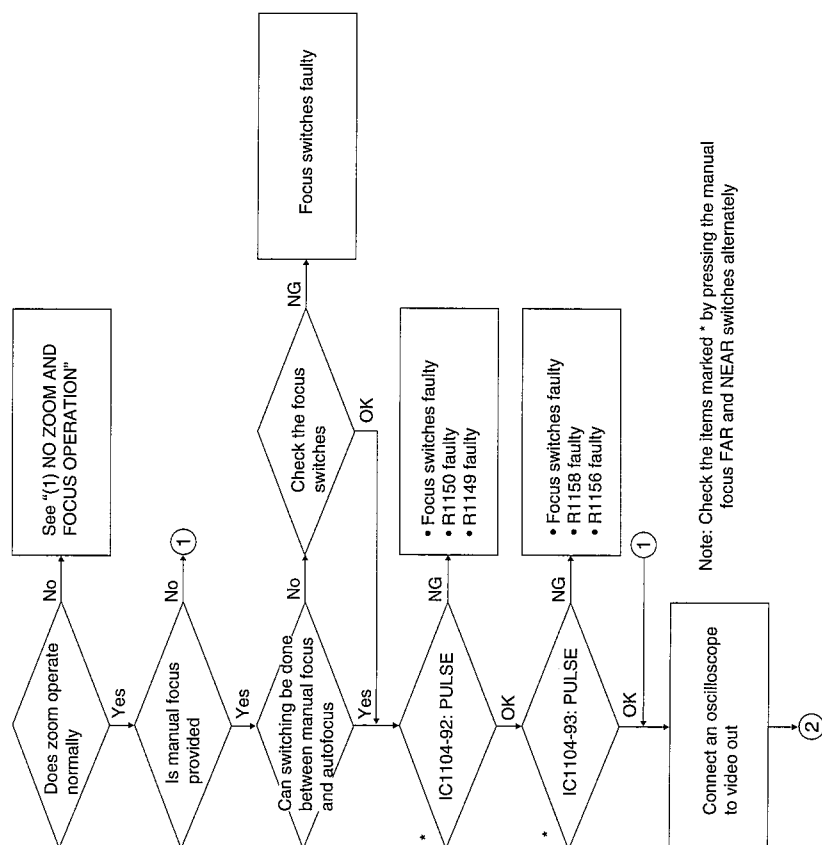
(2) NO FOCUS LENS OPERATION

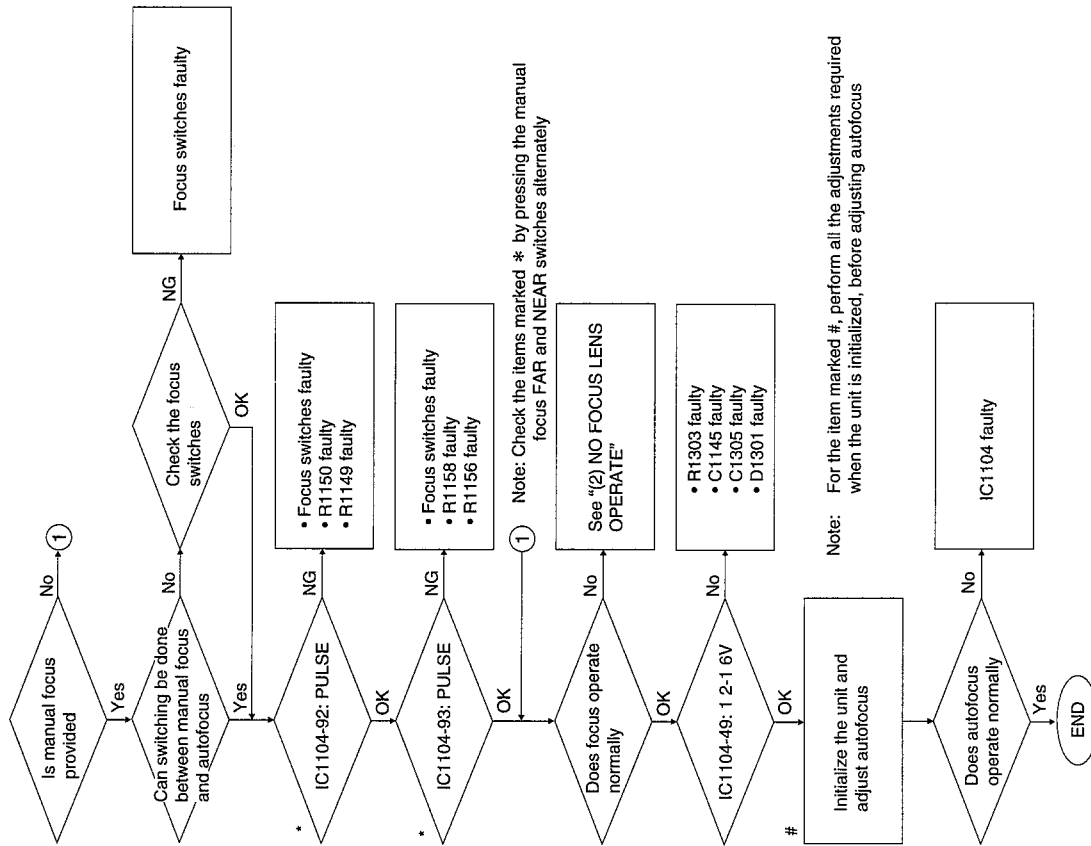
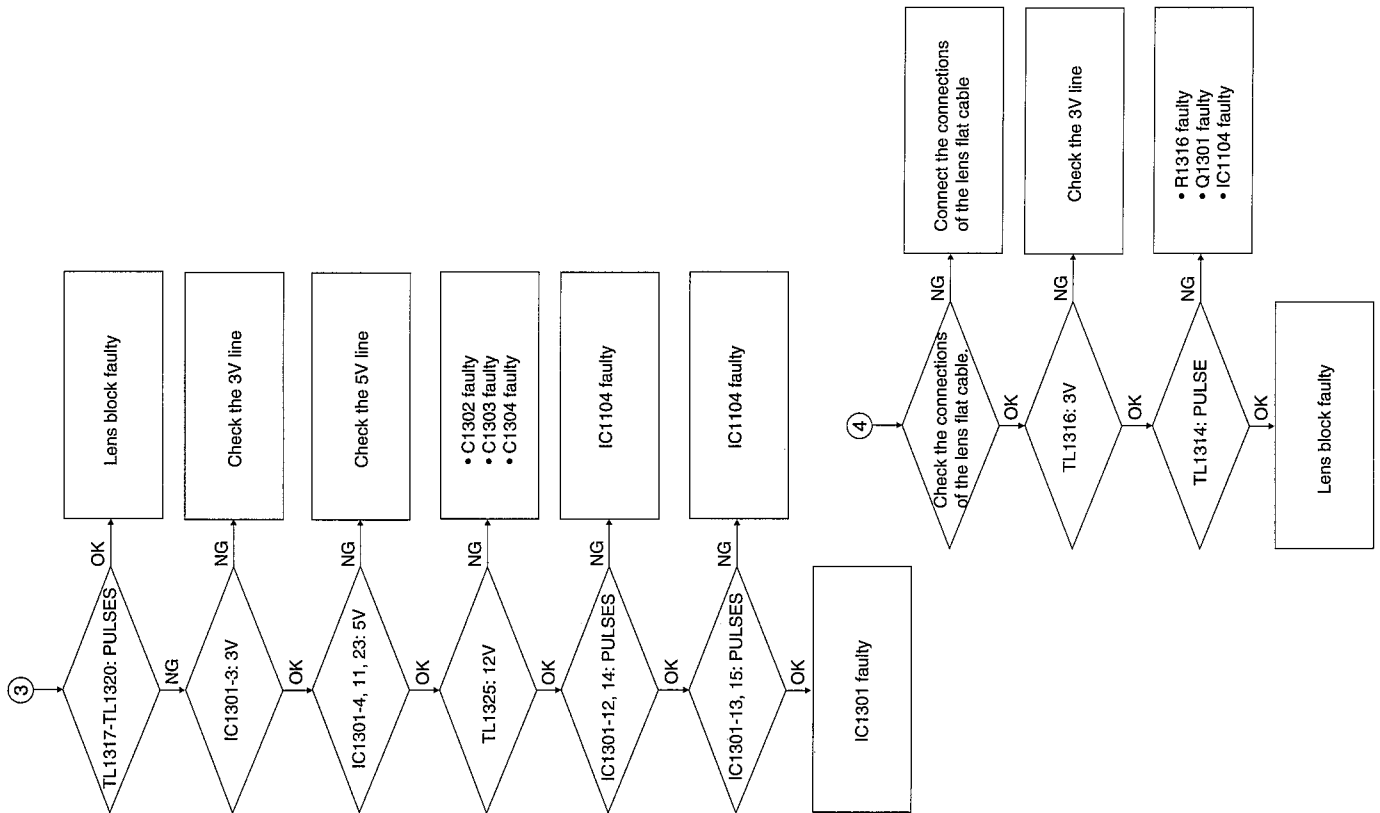


(3) NO ZOOM OPERATION



(4) NO AUTOFOCUS OPERATION

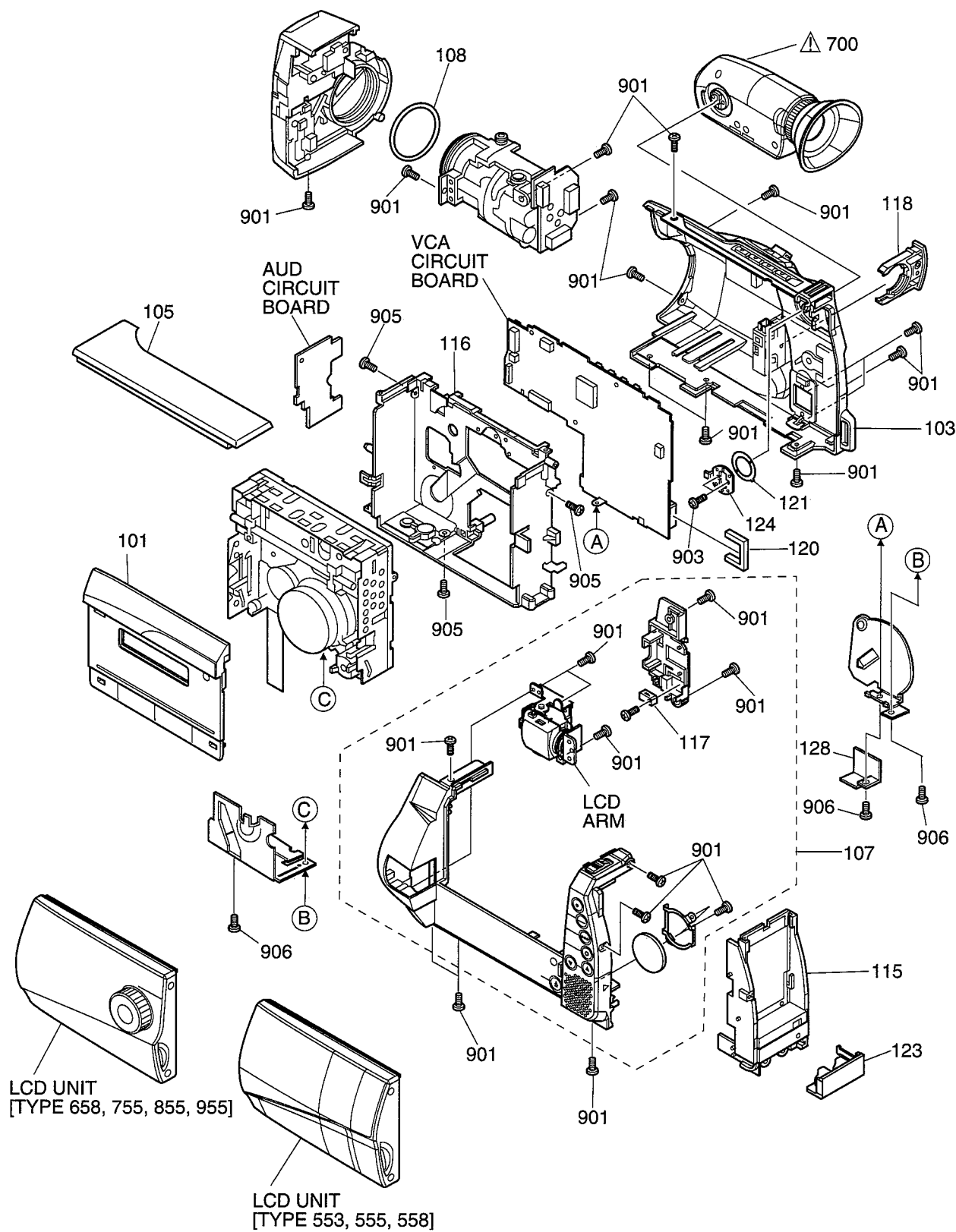




CHAPTER 4

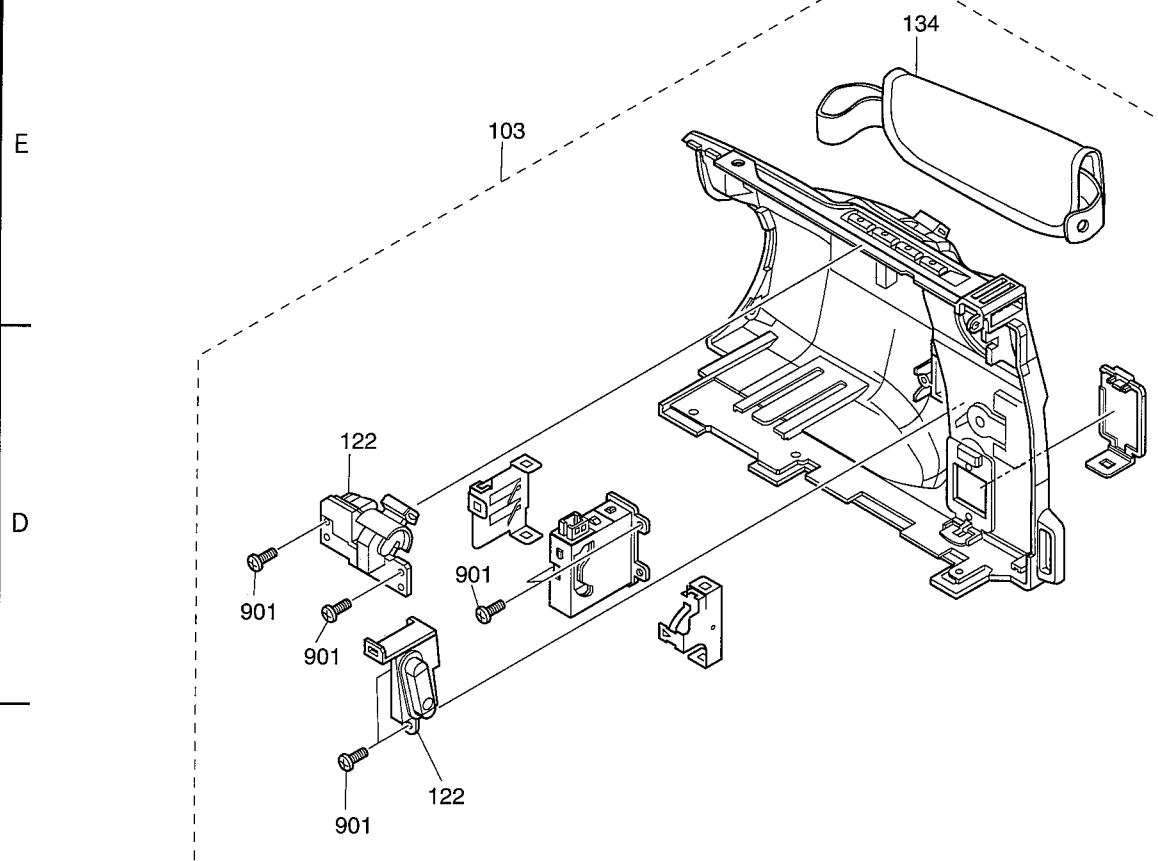
EXPLODED VIEW

1. CABINET

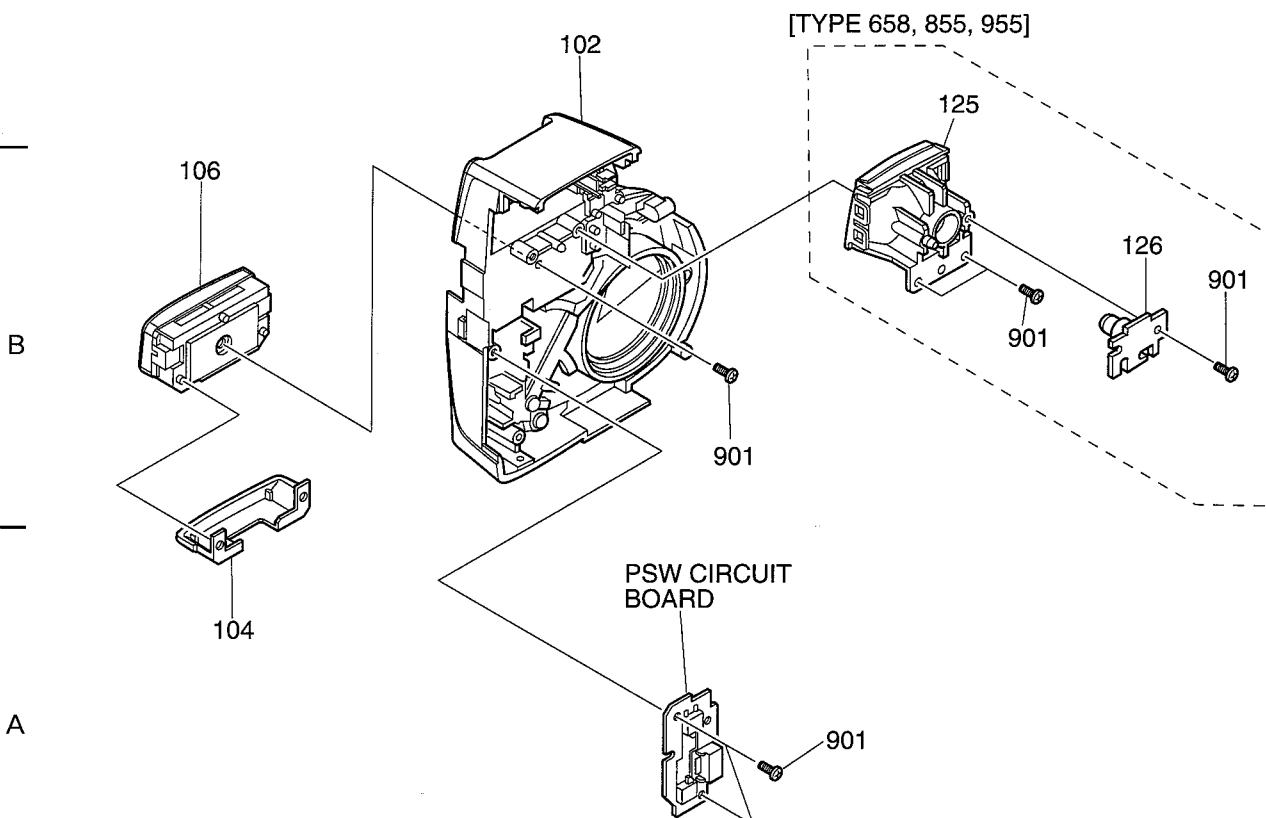


NOTE: The synthetic resin members that can be dismantled are shown by abbreviations using letters.

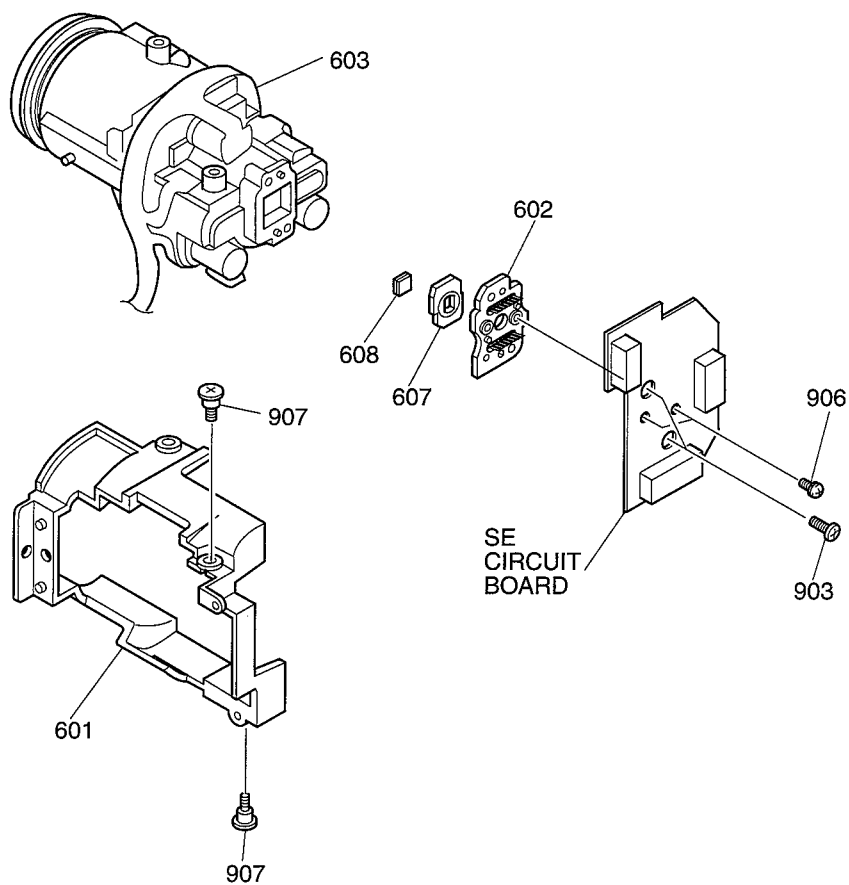
2. RIGHT CASE



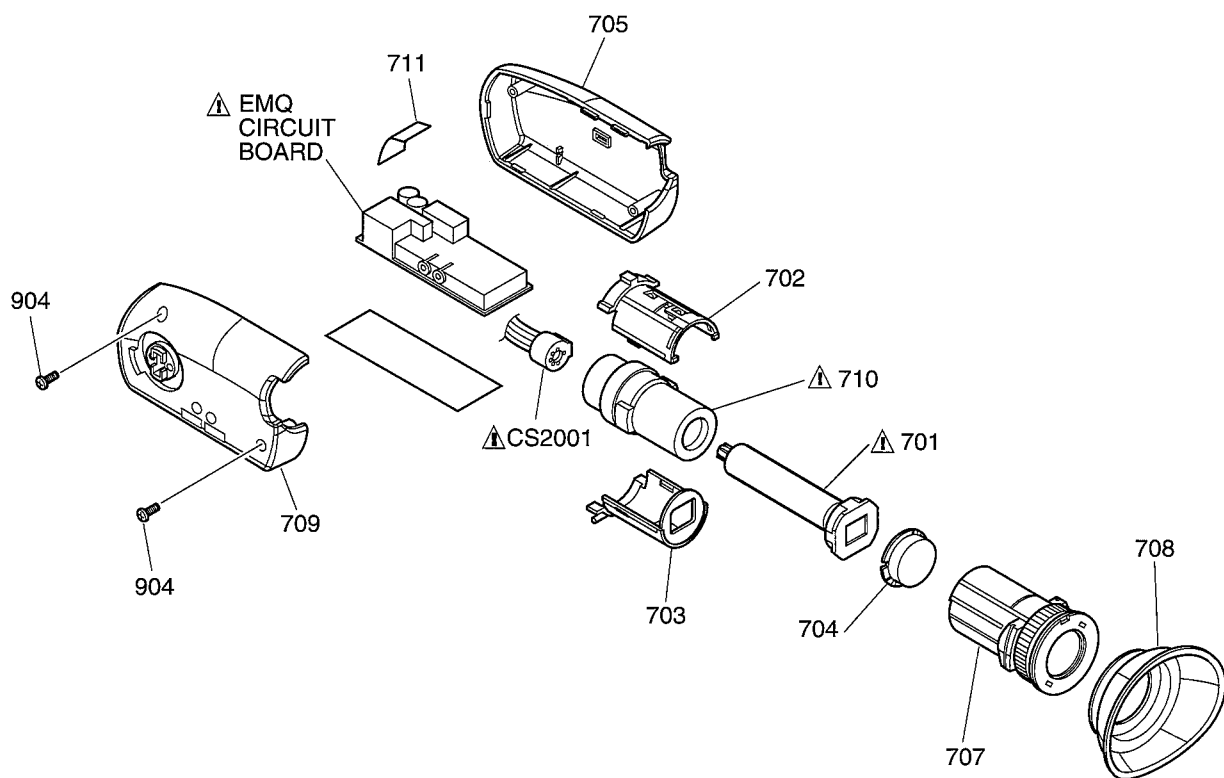
3. FRONT



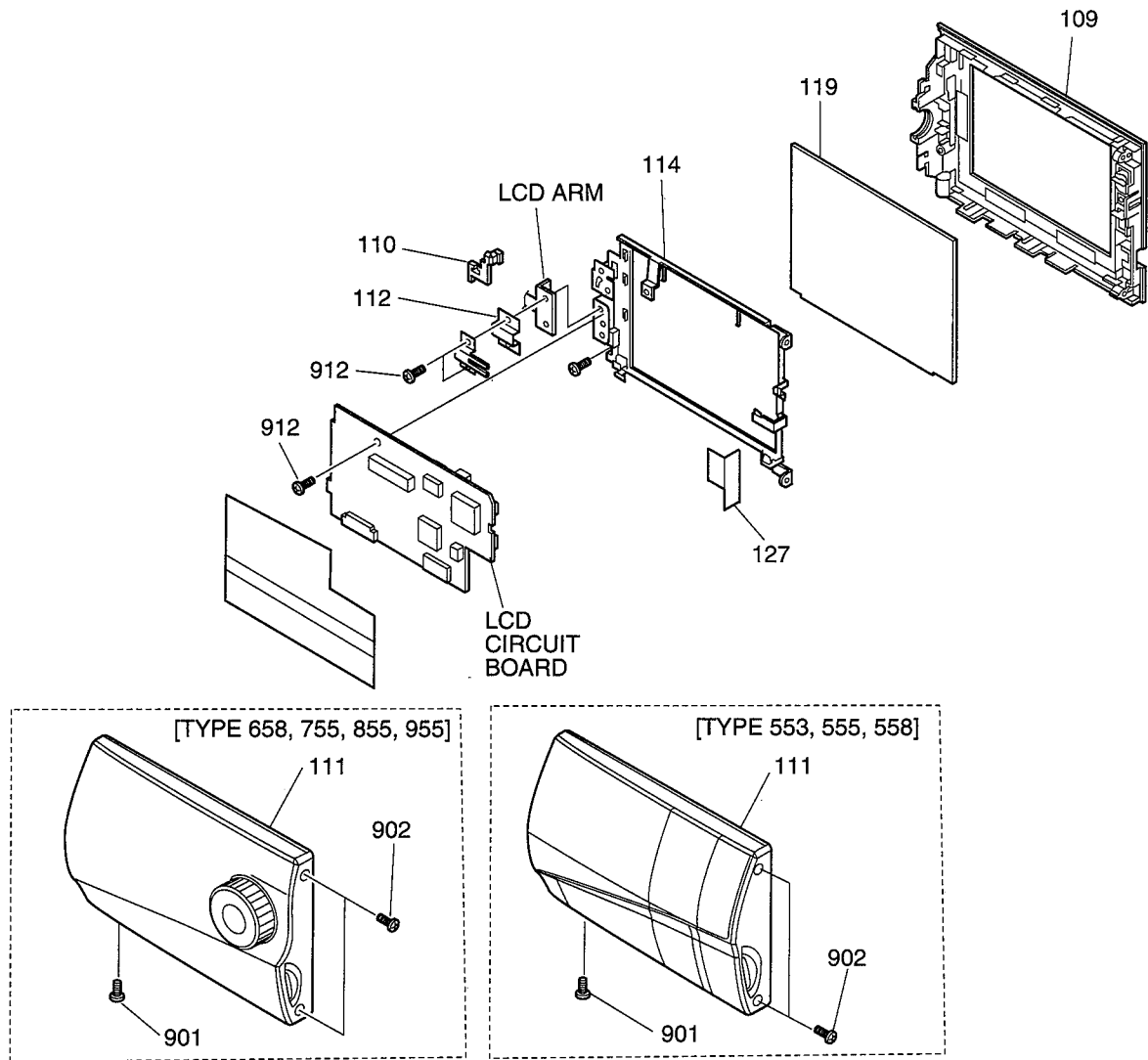
4. CAMERA



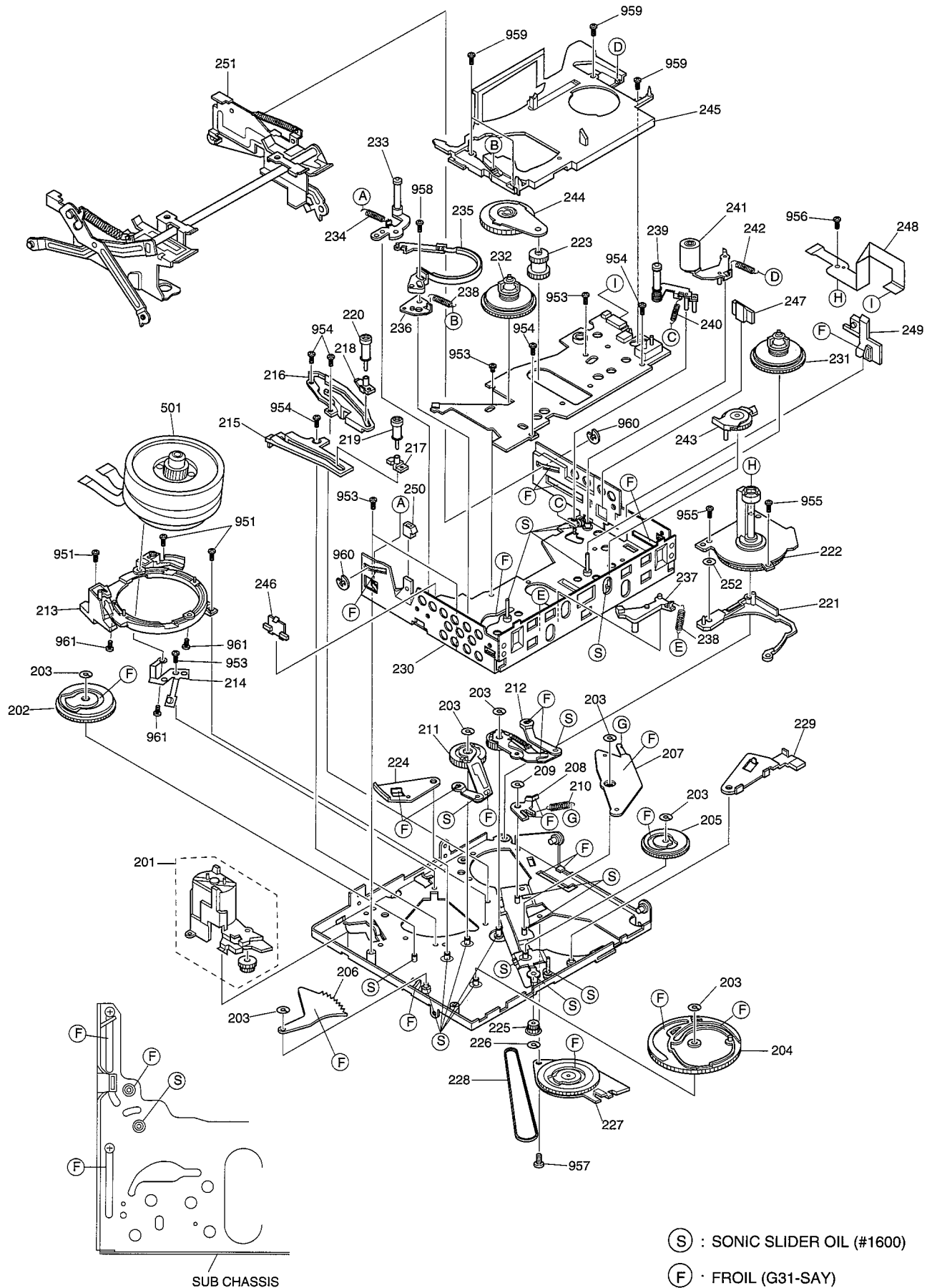
5. ELECTRONIC VIEWFINDER (EVF)



6. LCD

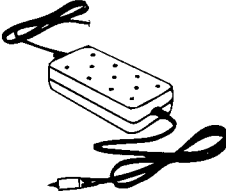
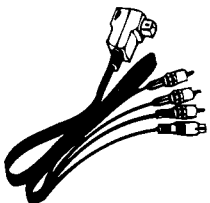
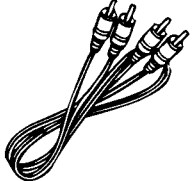
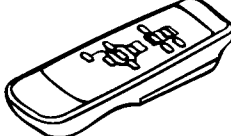
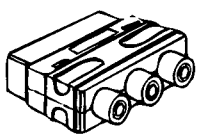
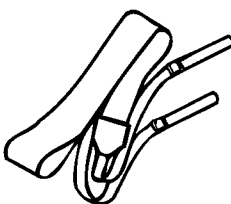
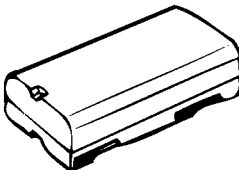


7. MECHANISM



8. ACCESSOREIS

E

 802  VM-ACE5E	804 [TYPE 755, 855, 955] 	804 [TYPE 553, 555, 558, 658] 	805  VM-RME411A(R)
806 [TYPE 553, 555, 755, 855, 955] 	807 	 Battery  VM-BPL13	

D

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B

A

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CHAPTER 5

REPLACEMENT PARTS LIST

1. MECHANICAL PARTS LIST

SYMBOL NO	P-NO	DESCRIPTION	SYMBOL NO	P-NO	DESCRIPTION
MECHANISM SECTION					
101	QD17823	LID, CASSETTE [TYPE 755, 855, 955]	208	KX19821	PLATE, PRESSURE
101	QD17824	LID, CASSETTE [TYPE 558, 658]	209	7787735	WASHER
101	QD17827	LID, CASSETTE [TYPE 553, 555]	210	KL12652	SPRING
102	QD17681	CASE, FRONT [TYPE 755, 855, 955]	211	KX19706	LINK (L)
102	QD17682	CASE, FRONT [TYPE 558]	212	KX19658	LINK (R)
102	QD17683	CASE, FRONT [TYPE 658]	213	KX21591	BASE, CYLINDER ASSY
102	QD17684	CASE, FRONT [TYPE 553, 555]	214	FU10311	BRUSH
103	QD17693	CASE, SIDE (R) [TYPE 755, 855, 955]	215	KX20551	GUIDE RAIL (I)
103	QD17694	CASE, SIDE (R) [TYPE 553, 558, 555, 658]	216	KX20561	GUIDE RAIL (O)
104	QD16604	COVER, MICROPHONE [TYPE 558]	217	KX20572	BASE, GUIDE ROLLER (I)
104	QD16605	COVER, MICROPHONE [TYPE 553, 555]	218	KX20582	BASE, GUIDE ROLLER (O)
104	QD17832	COVER, MICROPHONE [TYPE 755, 855, 955]	219	KF13071	ROLLER, GUIDE (I)
104	QD17831	COVER, MICROPHONE [TYPE 658]	220	KF13111	ROLLER, GUIDE (O)
105	QD16541	COVER, TOP [TYPE 553, 555]	221	KX20291	BASE, CM
105	QD16543	COVER, TOP [TYPE 558, 658, 755, 855, 955]	222	GP10665	MOTOR, CAPSTAN
106	GH10323	MICROPHONE (STEREO) [TYPE 755, 855, 955]	223	KF12911	GEAR, CENTER
106	GH10324	MICROPHONE, MONORAL [TYPE 553, 555, 558, 658]	224	KX19831	PLATE, OPERATION
107	QD17701	CASE, SIDE (L) [TYPE 755, 658, 855, 955]	225	KF12901	GEAR, PULLY
107	QD17702	CASE, SIDE (L) [TYPE 553]	226	7787733	WASHER
107	QD17704	CASE, SIDE (L) [TYPE 558]	227	KX19641	SWITCH, MODE
107	QD17706	CASE, SIDE (L) [TYPE 555]	228	KK10331	BELT, TIMING
108	NX11243	RING, O	229	KX20983	ARM, ED
109	QD16381	CASE, LCD (B) [TYPE 955]	230	UE13523	CHASSIS, SUB
109	QD17711	CASE, LCD (B) [TYPE 553, 555, 558, 755]	231	KH10353	REEL DISK, TAKE-UP
109	QD16411	CASE, LCD (B) [TYPE 658, 855]	232	KH10363	REEL DISK, SUPPLY
110	NX16762	LINK, SWITCH	233	KX20302	ARM, TENSION
111	QD17775	CASE, LCD (U) [TYPE 555]	234	KL12661	SPRING, TENSION
111	QD17776	CASE, LCD (U) [TYPE 558]	235	KX20201	BAND, TENSION
111	QD18061	CASE, LCD (U) [TYPE 955]	236	KX19841	BASE, B
111	QD17777	CASE, LCD (U) [TYPE 553]	237	KX19851	BRAKE
111	QD18062	CASE, LCD (U) [TYPE 855]	238	KL12671	SPRING
111	QD18064	CASE, LCD (U) [TYPE 658]	239	KX20494	ARM, OH
111	QD18063	CASE, LCD (U) [TYPE 755]	240	KL12681	SPRING
112	MN12761	SPACER	241	KX20353	ARM, PRESSURE
114	DT10222	LIGHT, BACK [TYPE 658, 855]	242	KL12691	SPRING
114	DT10212	LIGHT, BACK [TYPE 955]	243	KG10281	GEAR, BRAKE
114	DT10261	LIGHT, BACK [TYPE 553, 555, 558, 755]	244	KG10302	IDLER ASSY
115	FH10622	REAR UNIT	245	KX20483	COVER, IDLER
116	NT11402	FRAME, MECHA	246	KX20461	GUIDE, LIGHT (L)
117	FH10364	SWITCH	247	KX20472	GUIDE, LIGHT (R)
118	QD16491	COVER, BATTERY	248	EK11132	FLEXIBLE, MECHA
119	DB10641	DISPLAY, LIQUID CRYSTAL [TYPE 955]	249	KX20241	HOLDER, EJECT
119	DB10651	DISPLAY, LIQUID CRYSTAL [TYPE 553, 555, 558, 755]	250	KX19791	LID OPENER
119	DB10661	DISPLAY, LIQUID CRYSTAL [TYPE 658, 855]	251	KX19608	CASSETTE HOLDER ASSY
120	NJ10411	HOLDER	252	KX21112	WASHER
121	4899872	SPRING	501	HX10256	CYLINDER ASSY (CY-53LR) [TYPE 553, 555, 558, 658]
122	FH10442	SWITCH, T/W	501	HX10258	CYLINDER ASSY (CY-53L5-F) [TYPE 755, 855, 955]
123	OX13201	COVER, JACK	601	NT11412	FRAME, LENS
124	NA17141	STOPPER	602	UE13384	CCD IMAGE SENSOR ASSY [TYPE 553, 555, 558]
125	KS10771	LIGHT, DC [TYPE 658, 855, 955]	602	UE13387	CCD IMAGE SENSOR ASSY [TYPE 658, 755, 855, 955]
126	DP10291	LAMP [TYPE 658, 855, 955]	603	KQ10751	LENS ASSY
127	MN14221	SHEET	607	NX11252	RUBBER
128	MD12831	SHIELD, HEAD	608	DT10241	CRYSTAL [TYPE 553, 555, 558]
134	PV10241	STRAP, HAND	608	DT10251	CRYSTAL [TYPE 658, 755, 855, 955]
201	KX19871	HOLDER, LOADING MOTOR	△700	UX10591	EVF ASSY
202	KX20252	GEAR, CAM (A)	△701	DE10112	CRT
203	7787731	WASHER	702	QD16301	CASE, CRT (U)
204	KX21271	GEAR, CAM	703	QD16311	CASE, CRT (B)
205	KX20271	GEAR, CAM (C)	704	4592241	COVER
206	KX19801	ARM, DRIVE	705	QD16321	CASE, EVF (R)
207	KX21021	LEVER, DRIVE	707	QD15415	CASE, SLIDE
			708	QX11991	CAP, EYE
			709	QD16331	CASE, EVF (L)

2. ELECTRICAL PARTS LIST

SYMBOL NO	P-NO	DESCRIPTION	SYMBOL NO	P-NO	DESCRIPTION
△ 710	5242113	DEFLECTION YOKE	CAMERA & VCR SECTION		
711	4344292	SPACER			
901	7775946	SCREW (2X6)	C0001	0893193	CERAMIC CHIP 0.01UF+10% 25V
902	7775966	SCREW (2X6)	C0003	0893193	CERAMIC CHIP 0.01UF+10% 25V
903	7775945	SCREW (2X5)	C0004	0893193	CERAMIC CHIP 0.01UF+10% 25V
904	8619003	SCREW 1.7X5	C0005	0893193	CERAMIC CHIP 0.01UF+10% 25V
905	7773891	SCREW	C0101	AA00751R	CERAMIC CHIP 10UF+10% 6.3V
906	8650103	SCREW (2X3)	C0102	0806186	ELECTROLYTIC 220UF 6.3V
907	MJ10221	SCREW	C0103	0893197	CERAMIC CHIP 0.022UF+10% 25V
912	8650104	SCREW	C0104	0893188	CERAMIC CHIP 0.047UF+10% 16V
951	8700268	SCREW (1.7X3)	C0105	0893193	CERAMIC CHIP 0.01UF+10% 25V
953	7775911	SCREW (1.4X1.6)	C0106	0893193	CERAMIC CHIP 0.01UF+10% 25V
954	7775913	SCREW (1.4X2.0)	C0108	0893188	CERAMIC CHIP 0.047UF+10% 16V
955	8712970	SCREW (1.4X4)	C0109	0893197	CERAMIC CHIP 0.022UF+10% 25V
956	8712974	SCREW (1.4X6)	C0110	0893197	CERAMIC CHIP 0.022UF+10% 25V
957	8712968	SCREW (1.4X3P)	C0111	0893179	CERAMIC CHIP 0.1UF+10% 16V
958	MK11551	SCREW (1.7X3.0)	C0112	0893225	CERAMIC CHIP 0.1UF+80-20% 16V
959	8714026	SCREW (1.4X3.5)	C0113	0893008	CERAMIC CHIP 0.1UF +10% 16V
960	7778394	E RING	C0116	0893208	CERAMIC CHIP 1000PF+10% 50V
961	8711105	SCREW (2X5)	C0117	0893208	CERAMIC CHIP 1000PF+10% 50V
ACCESSORIES			C0118	0893225	CERAMIC CHIP 0.1UF+80-20% 16V
△ 802	TS15053	ADAPTOR, AC (VM-ACE5E)	C0119	0893119	CERAMIC CHIP 33PF+5% 50V
△ 802	TS15054	ADAPTOR, AC (VM-ACE5E (UK))	C0120	0893122	CERAMIC CHIP 47PF+5% 50V
△ 802	TS15055	ADAPTOR, AC (VM-ACE5E (AU))	C0121	0893121	CERAMIC CHIP 39PF+5% 50V
804	5856293	AV OUTPUT CORD [TYPE 755, 855, 955]	C0122	0893118	CERAMIC CHIP 27PF+5% 50V
804	EW10943	CORD [TYPE 553, 555, 558, 658]	C0124	0893114	CERAMIC CHIP 12PF+5% 50V
805	HL11045	REMOTE HAND SET (VM-RME411AR)	C0125	0893114	CERAMIC CHIP 12PF+5% 50V
806	TS12981	AV PLUG ADAPTER [TYPE 553, 555, 755, 855, 955]	C0126	0893124	CHIP CERAMIC 68PF+5% 50V
807	TS14621	STRAP, SHOULDER	C0128	0893193	CERAMIC CHIP 0.01UF+10% 25V
			C0130	0893208	CERAMIC CHIP 1000PF+10% 50V
			C0132	0893193	CERAMIC CHIP 0.01UF+10% 25V
			C0133	0893119	CERAMIC CHIP 33PF+5% 50V
			C0134	0893104	CERAMIC CHIP 2.0PF 50V [955/855/755]
			C0134	0893119	CERAMIC CHIP 33PF+5% 50V
					[658/558/555/553]
			C0136	0893117	CERAMIC CHIP 22PF+5% 50V
			C0137	0893193	CERAMIC CHIP 0.01UF+10% 25V
			C0140	0893193	CERAMIC CHIP 0.01UF+10% 25V
			C0141	0893133	CERAMIC CHIP 330PF+5% 50V
			C0142	0893123	CERAMIC CHIP 56PF+5% 50V
			C0143	0893193	CERAMIC CHIP 0.01UF+10% 25V
			C0144	0893193	CERAMIC CHIP 0.01UF+10% 25V
			C0145	0893193	CERAMIC CHIP 0.01UF+10% 25V
			C0146	0893109	CERAMIC CHIP 7.0PF 50V [955/855/755]
			C0146	0893117	CERAMIC CHIP 22PF+5% 50V
					[658/558/555/553]
			C0147	0893115	CERAMIC CHIP 15PF+5% 50V
			C0148	0893193	CERAMIC CHIP 0.01UF+10% 25V
			C0151	0893193	CERAMIC CHIP 0.01UF+10% 25V
			C0154	0893193	CERAMIC CHIP 0.01UF+10% 25V
			C0155	0893193	CERAMIC CHIP 0.01UF+10% 25V
			C0156	0893193	CERAMIC CHIP 0.01UF+10% 25V
			C0159	0893109	CERAMIC CHIP 7.0PF 50V
			C0164	0893179	CERAMIC CHIP 0.1UF+10% 16V
			C0165	0893193	CERAMIC CHIP 0.01UF+10% 25V
			C0170	0893193	CERAMIC CHIP 0.01UF+10% 25V
			C0172	0893179	CERAMIC CHIP 0.1UF+10% 16V
			C0173	0893193	CERAMIC CHIP 0.01UF+10% 25V
			C0176	0893111	CERAMIC CHIP 8PF+0.5% 50V
			C0177	0893126	CERAMIC CHIP 100PF+5% 50V
			C0178	0893113	CERAMIC CHIP 10PF+0.5% 50V
			C0179	0893123	CERAMIC CHIP 56PF+5% 50V
			C0180	0893214	CERAMIC CHIP 2700PF+10% 50V
			C0201	0806153	ELECTROLYTIC 10UF 16V

SYMBOL NO	P-NO	DESCRIPTION	SYMBOL NO	P-NO	DESCRIPTION
C0202	0806153	ELECTROLYTIC 10UF 16V	C0402R	0202327	CERAMIC CHIP 0.22UF+10% 16V
C0203	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0403	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0204	0893193	CERAMIC CHIP 0.01UF+10% 25V			[658/558/555/553]
C0205	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0403	0893208	CERAMIC CHIP 1000PF+10% 50V[955/855/755]
C0206	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0403M	0202327	CERAMIC CHIP 0.22UF+10% 16V
C0207	AA00751R	CERAMIC CHIP 10UF+10% 6.3V	C0403R	0893208	CERAMIC CHIP 1000PF+10% 50V
C0208	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0404L	0893213	CERAMIC CHIP 2200PF+10% 50V
C0209	0893227	CERAMIC CHIP 0.22UF+80-20% 16V	C0404M	0893188	CERAMIC CHIP 0.047UF+10% 16V
C0210	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0404R	0893213	CERAMIC CHIP 2200PF+10% 50V
C0211	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0405L	0893211	CERAMIC CHIP 1500PF+10% 50V
C0212	0806153	ELECTROLYTIC 10UF 16V	C0405R	0893211	CERAMIC CHIP 1500PF+10% 50V
C0213	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0406M	AD10266R	ELECTROLYTIC 22UF 4V
C0214	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0406R	0806168	ELECTROLYTIC 47UF 6.3V
C0217	0202321	CHIP CERAMIC 27PF+2% 50V	C0407L	AA00698R	CERAMIC CHIP 2.2UF+10% 16V
C0218	0893102	CERAMIC CHIP 1.0PF+0.25% 50V	C0407R	AA00698R	CERAMIC CHIP 2.2UF+10% 16V
C0219	0202319	CERAMIC CHIP 22PF+2% 50V	C0408L	0806027	ELECTROLYTIC 4.7UF 4V
C0220	0806153	ELECTROLYTIC 10UF 16V	C0408M	0806027	ELECTROLYTIC 4.7UF 4V
C0222	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0408R	0806027	ELECTROLYTIC 4.7UF 4V
C0223	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0409L	0893208	CERAMIC CHIP 1000PF+10% 50V
C0224	0893179	CERAMIC CHIP 0.1UF+10% 16V	C0409M	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0225	0893179	CERAMIC CHIP 0.1UF+10% 16V	C0409R	0893208	CERAMIC CHIP 1000PF+10% 50V
C0226	0893179	CERAMIC CHIP 0.1UF+10% 16V	C0410L	0893208	CERAMIC CHIP 1000PF+10% 50V
C0227	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0410M	0806027	ELECTROLYTIC 4.7UF 4V
C0228	0893179	CERAMIC CHIP 0.1UF+10% 16V	C0410R	0893208	CERAMIC CHIP 1000PF+10% 50V
C0229	0893227	CERAMIC CHIP 0.22UF+80-20% 16V	C0411L	0202327	CERAMIC CHIP 0.22UF+10% 16V
C0230	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0411M	AA00698R	CERAMIC CHIP 2.2UF+10% 16V
C0232	0893116	CERAMIC CHIP 18PF+5% 50V	C0411R	0202327	CERAMIC CHIP 0.22UF+10% 16V
C0233	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0412L	0806153	ELECTROLYTIC 10UF 16V
C0234	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0412M	0806133	ELECTROLYTIC 10UF 6V
C0235	0893122	CERAMIC CHIP 47PF+5% 50V	C0412R	0806153	ELECTROLYTIC 10UF 16V
C0237	0893126	CERAMIC CHIP 100PF+5% 50V	C0413M	0806027	ELECTROLYTIC 4.7UF 4V
C0238	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0413S	0806019	ELECTROLYTIC 2.2UF 10V
C0240	0893113	CERAMIC CHIP 10PF+0.5% 50V	C0414M	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0244	0893118	CERAMIC CHIP 27PF+5% 50V	C0415	0893191	CERAMIC CHIP 6800PF+10% 25V
C0245	0893131	CERAMIC CHIP 220PF+5% 50V			[658/558/555/553]
C0270	0893113	CERAMIC CHIP 10PF+0.5% 50V	C0415	0893197	CERAMIC CHIP 0.022UF+10% 25V
C0301	0893059	CERAMIC CHIP 0.47UF+80-20% 16V			[955/855/755]
C0302	0893059	CERAMIC CHIP 0.47UF+80-20% 16V	C0416M	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0303	0893213	CERAMIC CHIP 2200PF+10% 50V	C0416S	0806027	ELECTROLYTIC 4.7UF 4V
C0304	0806167	ELECTROLYTIC 47UF 4V	C0417L	AA00951R	CERAMIC CAPACITOR 1.0UF+10% 16V
C0305	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0417R	AA00951R	CERAMIC CAPACITOR 1.0UF+10% 16V
C0306	0893133	CERAMIC CHIP 330PF+5% 50V	C0418L	0893197	CERAMIC CHIP 0.022UF+10% 25V
C0307	0893062	CERAMIC CHIP 1UF+80-20% 16V	C0418M	0893215	CERAMIC CHIP 3300PF+10% 50V
C0308	0893174	CERAMIC CHIP 820PF+5% 50V	C0418R	0893197	CERAMIC CHIP 0.022UF+10% 25V
C0310	0806133	ELECTROLYTIC 10UF 6V	C0419L	0893197	CERAMIC CHIP 0.022UF+10% 25V
C0350	0806133	ELECTROLYTIC 10UF 6V	C0419M	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0351	0806178	ELECTROLYTIC 220UF 4V	C0419R	0893197	CERAMIC CHIP 0.022UF+10% 25V
C0352	0806178	ELECTROLYTIC 220UF 4V	C0420M	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0353	0806153	ELECTROLYTIC 10UF 16V	C0422M	0893213	CERAMIC CHIP 2200PF+10% 50V
C0354	0893179	CERAMIC CHIP 0.1UF+10% 16V	C0422S	0806133	ELECTROLYTIC 10UF 6V
C0355	0893225	CERAMIC CHIP 0.1UF+80-20% 16V	C0423M	AA00951R	CERAMIC CAPACITOR 1.0UF+10% 16V
C0356	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0423S	0806133	ELECTROLYTIC 10UF 6V
C0358	0806168	ELECTROLYTIC 47UF 6.3V	C0424L	0893177	CAPACITOR 0.068UF+10% 16V
C0360	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0424R	0893177	CAPACITOR 0.068UF+10% 16V
C0364	0806027	ELECTROLYTIC 4.7UF 4V	C0425	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0365	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0426S	0202327	CERAMIC CHIP 0.22UF+10% 16V
C0367	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0428	0806168	ELECTROLYTIC 47UF 6.3V
C0370	0893123	CERAMIC CHIP 56PF+5% 50V	C0429M	0806133	ELECTROLYTIC 10UF 6V
C0371	0893123	CERAMIC CHIP 56PF+5% 50V	C0430L	0893027	CERAMIC CHIP 0.1UF+10% 25V
C0372	0893123	CERAMIC CHIP 56PF+5% 50V	C0430R	0893027	CERAMIC CHIP 0.1UF+10% 25V
C0391	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0431L	0893208	CERAMIC CHIP 1000PF+10% 50V
C0395	0893062	CERAMIC CHIP 1UF+80-20% 16V	C0431M	AA00951R	CERAMIC CAPACITOR 1.0UF+10% 16V
C0401L	0202327	CERAMIC CHIP 0.22UF+10% 16V	C0431R	0893208	CERAMIC CHIP 1000PF+10% 50V
C0401R	0202327	CERAMIC CHIP 0.22UF+10% 16V	C0432	AA00698R	CERAMIC CHIP 2.2UF+10% 16V
C0402L	0202327	CERAMIC CHIP 0.22UF+10% 16V	C0432M	0202327	CERAMIC CHIP 0.22UF+10% 16V

SYMBOL NO	P-NO	DESCRIPTION	SYMBOL NO	P-NO	DESCRIPTION
C0433	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0540	0893062	CERAMIC CHIP 1UF+80-20% 16V
C0434M	0806153	ELECTROLYTIC 10UF 16V	C0541	AA00335R	CHIP CERAMIC 1.0UF+80-20% 25V
C0435M	0806156	ELECTROLYTIC 22UF 4V	C0542	0893062	CERAMIC CHIP 1UF+80-20% 16V
C0436M	0893018	CERAMIC CHIP 0.022UF+10% 25V	C0543	AA00335R	CHIP CERAMIC 1.0UF+80-20% 25V
C0437M	0893099	CERAMIC CHIP 0.47UF+10% 16V	C0544	0893062	CERAMIC CHIP 1UF+80-20% 16V
C0438M	0893188	CERAMIC CHIP 0.047UF+10% 16V	C0545	AA00802R	CERAMIC CHIP 10UF+80-20% 16V
C0439M	0893188	CERAMIC CHIP 0.047UF+10% 16V	C0546	AA00751R	CERAMIC CHIP 10UF+10% 6.3V
C0440M	0893008	CERAMIC CHIP 0.1UF +10% 16V	C0550	AA00802R	CERAMIC CHIP 10UF+80-20% 16V
C0441L	0202327	CERAMIC CHIP 0.22UF+10% 16V	C0551	AA00751R	CERAMIC CHIP 10UF+10% 6.3V
C0441R	0202327	CERAMIC CHIP 0.22UF+10% 16V	C0552	AA00751R	CERAMIC CHIP 10UF+10% 6.3V
C0442	0806174	ELECTROLYTIC 100UF 6.3V	C0559	AA00751R	CERAMIC CHIP 10UF+10% 6.3V
C0443	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0562	0893208	CERAMIC CHIP 1000PF+10% 50V
C0445S	0893062	CERAMIC CHIP 1UF+80-20% 16V	C0577	0893058	CERAMIC CHIP 0.33UF+80-20% 16V
C0446M	0893179	CERAMIC CHIP 0.1UF+10% 16V	C0578	0806174	ELECTROLYTIC 100UF 6.3V
C0447M	0202327	CERAMIC CHIP 0.22UF+10% 16V	C0581	0893008	CERAMIC CHIP 0.1UF +10% 16V
C0448	0806163	ELECTROLYTIC 33UF 10V [658/558/555/553]	C0583	AA00802R	CERAMIC CHIP 10UF+80-20% 16V
C0448	0806168	ELECTROLYTIC 47UF 6.3V [955/855/755]	C0586	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0449S	0893179	CERAMIC CHIP 0.1UF+10% 16V	C0601	0893205	CERAMIC CHIP 560PF+10% 50V
C0450S	0893179	CERAMIC CHIP 0.1UF+10% 16V	C0602	0806027	ELECTROLYTIC 4.7UF 4V
C0451L	0893227	CERAMIC CHIP 0.22UF+80-20% 16V	C0603	0893115	CERAMIC CHIP 15PF+5% 50V
C0451R	0893227	CERAMIC CHIP 0.22UF+80-20% 16V	C0604	0893215	CERAMIC CHIP 3300PF+10% 50V
C0451S	0893179	CERAMIC CHIP 0.1UF+10% 16V	C0605	0893208	CERAMIC CHIP 1000PF+10% 50V
C0452S	0893179	CERAMIC CHIP 0.1UF+10% 16V	C0606	0893204	CERAMIC CHIP 470PF+10% 50V
C0462L	0202327	CERAMIC CHIP 0.22UF+10% 16V	C0607	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0462R	0202327	CERAMIC CHIP 0.22UF+10% 16V	C0608	0893206	CERAMIC CHIP 680PF+10% 50V
C0463	0893062	CERAMIC CHIP 1UF+80-20% 16V	C0609	0893197	CERAMIC CHIP 0.022UF+10% 25V
C0467S	0202327	CERAMIC CHIP 0.22UF+10% 16V	C0610	0806156	ELECTROLYTIC 22UF 4V
C0472M	0893004	CERAMIC CHIP 0.047UF+10% 16V	C0611	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0474S	0893062	CERAMIC CHIP 1UF+80-20% 16V	C0612	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0476L	0893195	CERAMIC CHIP 0.015UF+10% 25V	C0613	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0476R	0893195	CERAMIC CHIP 0.015UF+10% 25V	C0614	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0482	0806167	ELECTROLYTIC 47UF 4V	C0615	0893205	CERAMIC CHIP 560PF+10% 50V
C0483S	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0616	0893115	CERAMIC CHIP 15PF+5% 50V
C0484M	0806168	ELECTROLYTIC 47UF 6.3V	C0617	0893215	CERAMIC CHIP 3300PF+10% 50V
C0485M	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0618	0893207	CERAMIC CHIP 820PF+10% 50V
C0485S	0893197	CERAMIC CHIP 0.022UF+10% 25V	C0619	0893177	CAPACITOR 0.068UF+10% 16V
C0501	0893217	CERAMIC CHIP 4700PF+10% 50V	C0622	0893123	CERAMIC CHIP 56PF+5% 50V
C0502	0893119	CERAMIC CHIP 33PF+5% 50V	C0631	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0503	0893217	CERAMIC CHIP 4700PF+10% 50V	C0632	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0504	0893119	CERAMIC CHIP 33PF+5% 50V	C0633	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0505	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0635	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0507	0893193	CERAMIC CHIP 0.01UF+10% 25V	C0636	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0508	0893217	CERAMIC CHIP 4700PF+10% 50V	C0637	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0509	0893126	CERAMIC CHIP 100PF+5% 50V	C0638	0893191	CERAMIC CHIP 6800PF+10% 25V
C0510	0893179	CERAMIC CHIP 0.1UF+10% 16V	C0640	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0511	0893183	CHIP CERAMIC 0.018PF+10% 16V	C0641	0893248	CHIP CERAMIC 0.33UF+80-20% 16V
C0513	0893227	CERAMIC CHIP 0.22UF+80-20% 16V	C0642	0806153	ELECTROLYTIC 10UF 16V
C0514	0893217	CERAMIC CHIP 4700PF+10% 50V	C0643	0806153	ELECTROLYTIC 10UF 16V
C0516	0893217	CERAMIC CHIP 4700PF+10% 50V	C0644	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0517	0893217	CERAMIC CHIP 4700PF+10% 50V	C0645	0893217	CERAMIC CHIP 4700PF+10% 50V
C0518	0893129	CERAMIC CHIP 180PF+5% 50V	C0647	0893013	CERAMIC CHIP 0.22UF+10% 16V
C0519	0893133	CERAMIC CHIP 330PF+5% 50V	C0648	0893188	CERAMIC CHIP 0.047UF+10% 16V
C0520	0893129	CERAMIC CHIP 180PF+5% 50V	C0649	0893188	CERAMIC CHIP 0.047UF+10% 16V
C0521	0893133	CERAMIC CHIP 330PF+5% 50V	C0650	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0522	0893129	CERAMIC CHIP 180PF+5% 50V	C0651	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0523	0893215	CERAMIC CHIP 3300PF+10% 50V	C0652	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0524	0893133	CERAMIC CHIP 330PF+5% 50V	C0655	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0525	0893129	CERAMIC CHIP 180PF+5% 50V	C0656	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0527	0893062	CERAMIC CHIP 1UF+80-20% 16V	C0657	0893059	CERAMIC CHIP 0.47UF+80-20% 16V
C0528	AA00802R	CERAMIC CHIP 10UF+80-20% 16V	C0658	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0529	AA00751R	CERAMIC CHIP 10UF+10% 6.3V	C0659	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0530	0893217	CERAMIC CHIP 4700PF+10% 50V	C0660	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0534	0893208	CERAMIC CHIP 1000PF+10% 50V	C0671	0893225	CERAMIC CHIP 0.1UF+80-20% 16V
C0535	AA00751R	CERAMIC CHIP 10UF+10% 6.3V	C0672	0893225	CERAMIC CHIP 0.1UF+80-20% 16V
C0538	0806157	ELECTROLYTIC 22UF 6.3V	C0673	0893213	CERAMIC CHIP 2200PF+10% 50V

SYMBOL NO	P-NO	DESCRIPTION	SYMBOL NO	P-NO	DESCRIPTION
C0691	0893198	CERAMIC CHIP 0.027UF+10% 25V	C1107	0893062	CERAMIC CHIP 1UF+80-20% 16V
C0692	0893195	CERAMIC CHIP 0.015UF+10% 25V	C1108	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0693	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1109	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0694	0893197	CERAMIC CHIP 0.022UF+10% 25V	C1111	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0695	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1112	0893062	CERAMIC CHIP 1UF+80-20% 16V
C0696	0893191	CERAMIC CHIP 6800PF+10% 25V	C1113	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0902	0806155	ELECTROLYTIC 10UF 50V	C1114	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0904	0893062	CERAMIC CHIP 1UF+80-20% 16V	C1115	0893225	CERAMIC CHIP 0.1UF+80-20% 16V
C0905	0806173	ELECTROLYTIC 100UF 4V	C1116	0893117	CERAMIC CHIP 22PF+5% 50V
C0906	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1117	0893119	CERAMIC CHIP 33PF+5% 50V[955/855/755/658]
C0907	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1117	0893121	CERAMIC CHIP 39PF+5% 50V[558/555/553]
C0908	0806167	ELECTROLYTIC 47UF 4V	C1118	0893119	CERAMIC CHIP 33PF+5% 50V[955/855/755/658]
C0909	0893062	CERAMIC CHIP 1UF+80-20% 16V	C1118	0893121	CERAMIC CHIP 39PF+5% 50V[558/555/553]
C0910	0893188	CERAMIC CHIP 0.047UF+10% 16V	C1119	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0911	0893108	CERAMIC CHIP 6.0PF+0.5% 50V	C1123	0806168	ELECTROLYTIC 47UF 6.3V
C0912	0893108	CERAMIC CHIP 6.0PF+0.5% 50V	C1128	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0913	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1129	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0915	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1131	0806167	ELECTROLYTIC 47UF 4V
C0916	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1133	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0917	0893179	CERAMIC CHIP 0.1UF+10% 16V	C1134	0893008	CERAMIC CHIP 0.1UF +10% 16V
C0918	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1135	0893062	CERAMIC CHIP 1UF+80-20% 16V
C0919	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1136	0893062	CERAMIC CHIP 1UF+80-20% 16V
C0920	0893062	CERAMIC CHIP 1UF+80-20% 16V	C1138	0893062	CERAMIC CHIP 1UF+80-20% 16V
C0921	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1139	0893062	CERAMIC CHIP 1UF+80-20% 16V
C0922	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1140	0893062	CERAMIC CHIP 1UF+80-20% 16V
C0923	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1141	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0924	0893122	CERAMIC CHIP 47PF+5% 50V	C1142	0893062	CERAMIC CHIP 1UF+80-20% 16V
C0925	0893124	CHIP CERAMIC 68PF+5% 50V	C1143	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0926	0893179	CERAMIC CHIP 0.1UF+10% 16V	C1144	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0927	0893179	CERAMIC CHIP 0.1UF+10% 16V	C1145	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0928	0893117	CERAMIC CHIP 22PF+5% 50V	C1146	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0929	0893117	CERAMIC CHIP 22PF+5% 50V	C1147	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0930	0893062	CERAMIC CHIP 1UF+80-20% 16V	C1148	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0934	0893179	CERAMIC CHIP 0.1UF+10% 16V	C1149	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0935	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1150	0893062	CERAMIC CHIP 1UF+80-20% 16V
C0941	0893062	CERAMIC CHIP 1UF+80-20% 16V	C1151	0893062	CERAMIC CHIP 1UF+80-20% 16V
C0942	0806173	ELECTROLYTIC 100UF 4V	C1153	0806167	ELECTROLYTIC 47UF 4V
C0962	AD10126R	ELECTROLYTIC 100UF 6.3V	C1154	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0965	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1155	0893179	CERAMIC CHIP 0.1UF+10% 16V
C0966	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1159	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0967	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1161	0806157	ELECTROLYTIC 22UF 6.3V
C0968	0893116	CERAMIC CHIP 18PF+5% 50V	C1165	0806167	ELECTROLYTIC 47UF 4V
C0971	0806186	ELECTROLYTIC 220UF 6.3V	C1167	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0972	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1172	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0974	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1201	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0998	0806168	ELECTROLYTIC 47UF 6.3V	C1202	0893193	CERAMIC CHIP 0.01UF+10% 25V
C0999	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1203	0893193	CERAMIC CHIP 0.01UF+10% 25V
C1002	0806169	ELECTROLYTIC 47UF 16V	C1204	0893132	CERAMIC CHIP 270PF+5% 50V
C1004	0893211	CERAMIC CHIP 1500PF+10% 50V	C1205	0893193	CERAMIC CHIP 0.01UF+10% 25V
C1005	0806169	ELECTROLYTIC 47UF 16V	C1206	0893007	CERAMIC CHIP 0.082UF+10% 16V
C1006	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1207	0202327	CERAMIC CHIP 0.22UF+10% 16V
C1007	0893107	CERAMIC CHIP 5PF+0.25% 50V [955/855/755/658]	C1208	0893113	CERAMIC CHIP 10PF+0.5% 50V
C1007	0893113	CERAMIC CHIP 10PF+0.5% 50V [558/555/553]	C1209	0893133	CERAMIC CHIP 330PF+5% 50V
C1008	0893225	CERAMIC CHIP 0.1UF+80-20% 16V	C1210	0893133	CERAMIC CHIP 330PF+5% 50V
C1009	0893062	CERAMIC CHIP 1UF+80-20% 16V	C1211	0893133	CERAMIC CHIP 330PF+5% 50V
C1010	0893193	CERAMIC CHIP 0.01UF+10% 25V	C1212	0893062	CERAMIC CHIP 1UF+80-20% 16V
C1011	0893062	CERAMIC CHIP 1UF+80-20% 16V	C1213	0893193	CERAMIC CHIP 0.01UF+10% 25V
C1012	0893062	CERAMIC CHIP 1UF+80-20% 16V	C1301	0806186	ELECTROLYTIC 220UF 6.3V
C1101	0893062	CERAMIC CHIP 1UF+80-20% 16V	C1302	0893193	CERAMIC CHIP 0.01UF+10% 25V
C1102	0806178	ELECTROLYTIC 220UF 4V	C1305	0893193	CERAMIC CHIP 0.01UF+10% 25V
C1104	0893225	CERAMIC CHIP 0.1UF+80-20% 16V	C1311	0893225	CERAMIC CHIP 0.1UF+80-20% 16V
C1105	0893225	CERAMIC CHIP 0.1UF+80-20% 16V	C1312	0893062	CERAMIC CHIP 1UF+80-20% 16V
C1106	0893225	CERAMIC CHIP 0.1UF+80-20% 16V	C1403	0893225	CERAMIC CHIP 0.1UF+80-20% 16V
			C1404	0893225	CERAMIC CHIP 0.1UF+80-20% 16V
			C1405	0806157	ELECTROLYTIC 22UF 6.3V

SYMBOL NO	P-NO	DESCRIPTION	SYMBOL NO	P-NO	DESCRIPTION
C1406	0806157	ELECTROLYTIC 22UF 6.3V	C5414	0893208	CERAMIC CHIP 1000PF+10% 50V
C1407	0893244	CERAMIC CHIP 0.012UF+10% 50V	C5415	0806131	CHIP CAPACITOR 2.2UF+20% 20V
C1408	0893244	CERAMIC CHIP 0.012UF+10% 50V	C5416	0893232	CERAMIC CHIP 0.1UF+80-20% 25V
C1409	0893244	CERAMIC CHIP 0.012UF+10% 50V	C5417	0893093	CERAMIC CHIP 2.2UF+80-20% 16V
C1410	0893244	CERAMIC CHIP 0.012UF+10% 50V	C5418	0893093	CERAMIC CHIP 2.2UF+80-20% 16V
C1411	0206647	ELECTROLYTIC 10UF 10V	C5419	0893062	CERAMIC CHIP 1UF+80-20% 16V
C1412	0206647	ELECTROLYTIC 10UF 10V	C5420	0893093	CERAMIC CHIP 2.2UF+80-20% 16V
C1413	0893215	CERAMIC CHIP 3300PF+10% 50V	C5421	0893093	CERAMIC CHIP 2.2UF+80-20% 16V
C1414	0893215	CERAMIC CHIP 3300PF+10% 50V	C5422	AD10275R	ELECTROLYTIC 10UF 20V
C1415	0893225	CERAMIC CHIP 0.1UF+80-20% 16V	C5501	0893179	CERAMIC CHIP 0.1UF+10% 16V
C1417	0806157	ELECTROLYTIC 22UF 6.3V	C5502	0893093	CERAMIC CHIP 2.2UF+80-20% 16V
C1418	0893225	CERAMIC CHIP 0.1UF+80-20% 16V	C5503	0806122	ELECTROLYTIC 68UF 6.3V
C1419	0893225	CERAMIC CHIP 0.1UF+80-20% 16V	C5504	0893184	CERAMIC CHIP 0.022UF+10% 16V
C1420	0893225	CERAMIC CHIP 0.1UF+80-20% 16V	C5505	0893193	CERAMIC CHIP 0.01UF+10% 25V
C5304	0893062	CERAMIC CHIP 1UF+80-20% 16V	C5506	0893179	CERAMIC CHIP 0.1UF+10% 16V
C5305	0893173	CERAMIC CHIP 680PF+5% 50V	C5507	AD10263R	ELECTROLYTIC 10UF 10V
C5306	0806133	ELECTROLYTIC 10UF 6V	C5508	0893062	CERAMIC CHIP 1UF+80-20% 16V
C5308	0893232	CERAMIC CHIP 0.1UF+80-20% 25V	C5509	0893116	CERAMIC CHIP 18PF+5% 50V
C5309	0893246	CERAMIC CHIP 0.047UF+80-20% 50V	C5510	0893118	CERAMIC CHIP 27PF+5% 50V
C5310	AA01121R	CERAMIC CHIP 0.047UF	C5511	AD10276R	ELECTROLYTIC 33UF 10V
C5312	0806113	ELECTROLYTIC 1UF 25V	C5512	0893062	CERAMIC CHIP 1UF+80-20% 16V
C5313	0893193	CERAMIC CHIP 0.01UF+10% 25V	C5513	AF10112R	CAPACITOR 0.01UF+5% 50V
C5314	0893111	CERAMIC CHIP 8PF+0.5% 50V	C5514	AA10644R	CERAMIC CHIP 12PF+5% 3KV [955]
C5315	AA01121R	CERAMIC CHIP 0.047UF	C5514	AA10645R	CERAMIC CHIP 10PF+5% [EXCEPT FOR 955]
C5316	AA01121R	CERAMIC CHIP 0.047UF	C5515	AF10112R	CAPACITOR 0.01UF+5% 50V
C5317	AA01121R	CERAMIC CHIP 0.047UF	C5516	AF10112R	CAPACITOR 0.01UF+5% 50V
C5317	0893232	CERAMIC CHIP 0.1UF+80-20% 25V	C5517	AF10112R	CAPACITOR 0.01UF+5% 50V
C5318	0893193	CERAMIC CHIP 0.01UF+10% 25V	C5518	AA00802R	CERAMIC CHIP 10UF+80-20% 16V
C5319	AD10263R	ELECTROLYTIC 10UF 10V	C5519	AA00802R	CERAMIC CHIP 10UF+80-20% 16V
C5320	0893232	CERAMIC CHIP 0.1UF+80-20% 25V	C5603	0893193	CERAMIC CHIP 0.01UF+10% 25V
C5321	0893232	CERAMIC CHIP 0.1UF+80-20% 25V	C5604	0806133	ELECTROLYTIC 10UF 6V
C5322	0893232	CERAMIC CHIP 0.1UF+80-20% 25V	C5605	0893179	CERAMIC CHIP 0.1UF+10% 16V
C5323	0893232	CERAMIC CHIP 0.1UF+80-20% 25V	C5606	0893193	CERAMIC CHIP 0.01UF+10% 25V
C5324	0893232	CERAMIC CHIP 0.1UF+80-20% 25V	C5607	0893193	CERAMIC CHIP 0.01UF+10% 25V
C5325	0893193	CERAMIC CHIP 0.01UF+10% 25V	C5608	AD10256R	ELECTROLYTIC 3.3UF 20V
C5326	0893191	CERAMIC CHIP 6800PF+10% 25V	C5609	0893193	CERAMIC CHIP 0.01UF+10% 25V
C5327	0806024	ELECTROLYTIC 3.3UF 6.3V	C5610	0893179	CERAMIC CHIP 0.1UF+10% 16V
C5328	0893232	CERAMIC CHIP 0.1UF+80-20% 25V	C5611	0893208	CERAMIC CHIP 1000PF+10% 50V
C5330	0893173	CERAMIC CHIP 680PF+5% 50V	C5512	0893126	CERAMIC CHIP 100PF+5% 50V [955]
C5331	0893193	CERAMIC CHIP 0.01UF+10% 25V	C5612	0893125	CERAMIC CHIP 82PF+5% 50V [EXCEPT FOR 955]
C5332	0893193	CERAMIC CHIP 0.01UF+10% 25V	C5613	0893215	CERAMIC CHIP 3300PF+10% 50V
C5333	0893193	CERAMIC CHIP 0.01UF+10% 25V	C5615	0806113	ELECTROLYTIC 1UF 25V
C5334	0893193	CERAMIC CHIP 0.01UF+10% 25V	C5616	0806113	ELECTROLYTIC 1UF 25V
C5335	0893125	CERAMIC CHIP 82PF+5% 50V	C5617	0893193	CERAMIC CHIP 0.01UF+10% 25V
C5336	AA00802R	CERAMIC CHIP 10UF+80-20% 16V	C5619	0893193	CERAMIC CHIP 0.01UF+10% 25V
C5337	0806129	ELECTROLYTIC 22UF 10V	C5620	AD10274R	ELECTROLYTIC 6.8UF 20V
C5338	0806129	ELECTROLYTIC 22UF 10V	C5621	0893193	CERAMIC CHIP 0.01UF+10% 25V
C5340	0893232	CERAMIC CHIP 0.1UF+80-20% 25V	C5622	0893179	CERAMIC CHIP 0.1UF+10% 16V
C5341	0893232	CERAMIC CHIP 0.1UF+80-20% 25V	C5623	0806117	ELECTROLYTIC 3.3UF 16V
C5342	0893232	CERAMIC CHIP 0.1UF+80-20% 25V	C5624	0893126	CERAMIC CHIP 100PF+5% 50V
C5343	0893175	CERAMIC CHIP 1000PF+5% 50V	C5625	0893115	CERAMIC CHIP 15PF+5% 50V [955]
C5390	0806133	ELECTROLYTIC 10UF 6V	C5625	0893119	CERAMIC CHIP 33PF+5% 50V [855/658]
C5401	0893093	CERAMIC CHIP 2.2UF+80-20% 16V	C5625	0893123	CERAMIC CHIP 56PF+5% 50V [755/558/555/553]
C5402	0893193	CERAMIC CHIP 0.01UF+10% 25V	C5626	0893239	CERAMIC CHIP 0.01UF+80-20% 50V
C5403	0806133	ELECTROLYTIC 10UF 6V	C5627	0893239	CERAMIC CHIP 0.01UF+80-20% 50V
C5404	0893093	CERAMIC CHIP 2.2UF+80-20% 16V	C5628	0893239	CERAMIC CHIP 0.01UF+80-20% 50V
C5405	0806122	ELECTROLYTIC 68UF 6.3V	C5629	0893239	CERAMIC CHIP 0.01UF+80-20% 50V
C5406	0893095	CERAMIC CHIP 0.33UF+10% 16V	C5630	0893239	CERAMIC CHIP 0.01UF+80-20% 50V
C5407	0893232	CERAMIC CHIP 0.1UF+80-20% 25V	C5631	0893239	CERAMIC CHIP 0.01UF+80-20% 50V
C5408	0893232	CERAMIC CHIP 0.1UF+80-20% 25V	C5701	0893239	CERAMIC CHIP 0.01UF+80-20% 50V
C5409	0893093	CERAMIC CHIP 2.2UF+80-20% 16V	C5702	0893239	CERAMIC CHIP 0.01UF+80-20% 50V
C5410	0893093	CERAMIC CHIP 2.2UF+80-20% 16V	C5711	0893239	CERAMIC CHIP 0.01UF+80-20% 50V
C5411	AD10275R	ELECTROLYTIC 10UF 20V	C9401	0893193	CERAMIC CHIP 0.01UF+10% 25V
C5412	0893116	CERAMIC CHIP 18PF+5% 50V	C9450	0806133	ELECTROLYTIC 10UF 6V
C5413	0893127	CERAMIC CHIP 120PF+5% 50V			

SYMBOL NO	P-NO	DESCRIPTION	SYMBOL NO	P-NO	DESCRIPTION
R0001	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0163	0790036	CHIP RESISTOR 820 OHM $\pm$ 5% 1/16W
R0002	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0164	0790046	CHIP RESISTOR 4.7KOHM $\pm$ 5% 1/16W
R0003	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0165	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0006	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W	R0167	0790028	CHIP RESISTOR 220 OHM $\pm$ 5% 1/16W
R0007	0103978	CHIP RESISTOR 3.30HM $\pm$ 5% 1/8W	R0168	0790036	CHIP RESISTOR 820 OHM $\pm$ 5% 1/16W
R0008	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0170	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R0009	0790047	CHIP RESISTOR 5.6KOHM $\pm$ 5% 1/16W	R0171	0790039	CHIP RESISTOR 1.5KOHM $\pm$ 5% 1/16W
R0010	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W	R0172	0790038	CHIP RESISTOR 1.2KOHM $\pm$ 5% 1/16W
R0011	0105192	CHIP RESISTOR 1KOHM $\pm$ 0.5% 1/16W	R0173	0790043	CHIP RESISTOR 2.7KOHM $\pm$ 5% 1/16W
R0012	0104724	CHIP RESISTOR 10KOHM $\pm$ 1% 1/16W	R0174	0790038	CHIP RESISTOR 1.2KOHM $\pm$ 5% 1/16W
R0013	0105203	CHIP RESISTOR 18KOHM $\pm$ 0.5% 1/16W	R0175	0790033	CHIP RESISTOR 470 OHM $\pm$ 5% 1/16W
R0014	0105192	CHIP RESISTOR 1KOHM $\pm$ 0.5% 1/16W	R0176	0790033	CHIP RESISTOR 470 OHM $\pm$ 5% 1/16W
R0017	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0185	0790032	CHIP RESISTOR 390 OHM $\pm$ 5% 1/16W
R0018	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0188	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0020	AQ10405R	CHIP RESISTOR 0.100HM 1/4W	R0190	0790034	CHIP RESISTOR 560 OHM $\pm$ 5% 1/16W
R0024	AQ10633R	CHIP RESISTOR 56KOHM $\pm$ 0.5% 1/16W	R0191	0790028	CHIP RESISTOR 220 OHM $\pm$ 5% 1/16W
R0025	0105217	CHIP RESISTOR 150KOHM $\pm$ 0.5% 1/16W	R0194	0790055	CHIP RESISTOR 22KOHM $\pm$ 5% 1/16W
R0101	0790024	CHIP RESISTOR 100 OHM $\pm$ 5% 1/16W	R0195	0790055	CHIP RESISTOR 22KOHM $\pm$ 5% 1/16W
R0102	0790007	CHIP RESISTOR 5.6 OHM $\pm$ 5% 1/16W	R0196	0790034	CHIP RESISTOR 560 OHM $\pm$ 5% 1/16W
R0103	0790007	CHIP RESISTOR 5.6 OHM $\pm$ 5% 1/16W	R0197	0790034	CHIP RESISTOR 560 OHM $\pm$ 5% 1/16W
R0104	0790024	CHIP RESISTOR 100 OHM $\pm$ 5% 1/16W	R0198	0790034	CHIP RESISTOR 560 OHM $\pm$ 5% 1/16W
R0105	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0199	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R0106	0790055	CHIP RESISTOR 22KOHM $\pm$ 5% 1/16W	R0201	0790058	CHIP RESISTOR 39KOHM $\pm$ 5% 1/16W
R0107	0790054	CHIP RESISTOR 18KOHM $\pm$ 5% 1/16W	R0202	0790035	CHIP RESISTOR 680 OHM $\pm$ 5% 1/16W
R0108	0790044	CHIP RESISTOR 3.3KOHM $\pm$ 5% 1/16W	R0203	0790044	CHIP RESISTOR 3.3KOHM $\pm$ 5% 1/16W
R0109	0790036	CHIP RESISTOR 820 OHM $\pm$ 5% 1/16W	R0205	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W
R0110	0790076	CHIP RESISTOR 820KOHM $\pm$ 5% 1/16W	R0206	0790034	CHIP RESISTOR 560 OHM $\pm$ 5% 1/16W
R0111	0790042	CHIP RESISTOR 2.2KOHM $\pm$ 5% 1/16W	R0207	0790045	CHIP RESISTOR 560 OHM $\pm$ 5% 1/16W
R0113	0790039	CHIP RESISTOR 1.5KOHM $\pm$ 5% 1/16W	R0208	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R0114	0790039	CHIP RESISTOR 1.5KOHM $\pm$ 5% 1/16W	R0209	0790035	CHIP RESISTOR 680 OHM $\pm$ 5% 1/16W
R0119	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0210	0790052	CHIP RESISTOR 12KOHM $\pm$ 5% 1/16W
R0120	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0211	0790033	CHIP RESISTOR 470 OHM $\pm$ 5% 1/16W
R0121	0790008	CHIP RESISTOR 6.8 OHM $\pm$ 5% 1/16W	R0212	0790034	CHIP RESISTOR 560 OHM $\pm$ 5% 1/16W
R0122	0790033	CHIP RESISTOR 470 OHM $\pm$ 5% 1/16W	R0214	0790038	CHIP RESISTOR 1.2KOHM $\pm$ 5% 1/16W
R0123	0790034	CHIP RESISTOR 560 OHM $\pm$ 5% 1/16W	R0215	0790039	CHIP RESISTOR 1.5KOHM $\pm$ 5% 1/16W
R0124	0790057	CHIP RESISTOR 33KOHM $\pm$ 5% 1/16W	R0219	0790034	CHIP RESISTOR 560 OHM $\pm$ 5% 1/16W
R0125	0790062	CHIP RESISTOR 68KOHM $\pm$ 5% 1/16W	R0220	0790032	CHIP RESISTOR 390 OHM $\pm$ 5% 1/16W
R0127	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W	R0222	0790032	CHIP RESISTOR 390 OHM $\pm$ 5% 1/16W
R0128	0790041	CHIP RESISTOR 1.8KOHM $\pm$ 5% 1/16W	R0225	0790036	CHIP RESISTOR 820 OHM $\pm$ 5% 1/16W
R0129	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W	R0227	0790042	CHIP RESISTOR 2.2KOHM $\pm$ 5% 1/16W
R0130	0790041	CHIP RESISTOR 1.8KOHM $\pm$ 5% 1/16W	R0230	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W
R0131	0790046	CHIP RESISTOR 4.7KOHM $\pm$ 5% 1/16W	R0231	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0132	0790044	CHIP RESISTOR 3.3KOHM $\pm$ 5% 1/16W	R0232	0790044	CHIP RESISTOR 3.3KOHM $\pm$ 5% 1/16W
R0139	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0233	0790029	CHIP RESISTOR 270 OHM $\pm$ 5% 1/16W
R0140	0790028	CHIP RESISTOR 220 OHM $\pm$ 5% 1/16W	R0234	0790029	CHIP RESISTOR 270 OHM $\pm$ 5% 1/16W
R0141	0790028	CHIP RESISTOR 220 OHM $\pm$ 5% 1/16W [658/558/555/553]	R0238	0790033	CHIP RESISTOR 470 OHM $\pm$ 5% 1/16W
R0141	0790044	CHIP RESISTOR 3.3KOHM $\pm$ 5% 1/16W [955/855/755]	R0239	0790033	CHIP RESISTOR 470 OHM $\pm$ 5% 1/16W
R0142	0790046	CHIP RESISTOR 4.7KOHM $\pm$ 5% 1/16W	R0243	0790024	CHIP RESISTOR 100 OHM $\pm$ 5% 1/16W
R0143	0790033	CHIP RESISTOR 470 OHM $\pm$ 5% 1/16W	R0262	BM00141R	FILTER
R0144	0790034	CHIP RESISTOR 560 OHM $\pm$ 5% 1/16W	R0263	BM00141R	FILTER
R0145	0790038	CHIP RESISTOR 1.2KOHM $\pm$ 5% 1/16W	R0265	0790052	CHIP RESISTOR 12KOHM $\pm$ 5% 1/16W
R0146	0790032	CHIP RESISTOR 390 OHM $\pm$ 5% 1/16W	R0266	0790046	CHIP RESISTOR 4.7KOHM $\pm$ 5% 1/16W
R0147	0790035	CHIP RESISTOR 680 OHM $\pm$ 5% 1/16W	R0267	0790042	CHIP RESISTOR 2.2KOHM $\pm$ 5% 1/16W
R0148	0790055	CHIP RESISTOR 22KOHM $\pm$ 5% 1/16W	R0268	0790045	CHIP RESISTOR 3.9KOHM $\pm$ 5% 1/16W
R0149	0790048	CHIP RESISTOR 6.8KOHM $\pm$ 5% 1/16W	R0269	0790035	CHIP RESISTOR 680 OHM $\pm$ 5% 1/16W
R0150	0790041	CHIP RESISTOR 1.8KOHM $\pm$ 5% 1/16W	R0271	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R0151	0790064	CHIP RESISTOR 100KOHM $\pm$ 5% 1/16W	R0272	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R0152	0790032	CHIP RESISTOR 390 OHM $\pm$ 5% 1/16W	R0301	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R0157	0790047	CHIP RESISTOR 5.6KOHM $\pm$ 5% 1/16W	R0302	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R0158	0790034	CHIP RESISTOR 560 OHM $\pm$ 5% 1/16W	R0303	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0159	0790034	CHIP RESISTOR 560 OHM $\pm$ 5% 1/16W	R0305	0790068	CHIP RESISTOR 220KOHM $\pm$ 5% 1/16W
R0160	0790027	CHIP RESISTOR 1800HM $\pm$ 5% 1/16W	R0310	0790018	CHIP RESISTOR 39 OHM $\pm$ 5% 1/16W
R0161	0790034	CHIP RESISTOR 560 OHM $\pm$ 5% 1/16W	R0311	0790018	CHIP RESISTOR 39 OHM $\pm$ 5% 1/16W
			R0312	0790053	CHIP RESISTOR 15KOHM $\pm$ 5% 1/16W
			R0315	AQ00247R	CHIP RESISTOR 100KOHM $\pm$ 1% 1/16W

SYMBOL NO	P-NO	DESCRIPTION	SYMBOL NO	P-NO	DESCRIPTION
R0350	0790022	CHIP RESISTOR 68 OHM $\pm$ 5% 1/16W	R0472M	0790043	CHIP RESISTOR 2.7KOHM $\pm$ 5% 1/16W
R0351	0790022	CHIP RESISTOR 68 OHM $\pm$ 5% 1/16W	R0473	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W
R0354	0790042	CHIP RESISTOR 2.2KOHM $\pm$ 5% 1/16W	R0474	0790038	CHIP RESISTOR 1.2KOHM $\pm$ 5% 1/16W
R0361	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0475	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R0362	0104084	CHIP RESISTOR 2.2MOHM $\pm$ 5% 1/16W	R0475M	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0374	0790028	CHIP RESISTOR 220 OHM $\pm$ 5% 1/16W	R0476	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R0391	0790022	CHIP RESISTOR 68 OHM $\pm$ 5% 1/16W	R0476M	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W
R0397	0790022	CHIP RESISTOR 68 OHM $\pm$ 5% 1/16W	R0480S	0790046	CHIP RESISTOR 4.7KOHM $\pm$ 5% 1/16W
R0402L	0790058	CHIP RESISTOR 39KOHM $\pm$ 5% 1/16W	R0481S	0790028	CHIP RESISTOR 220 OHM $\pm$ 5% 1/16W
R0402M	0790048	CHIP RESISTOR 6.8KOHM $\pm$ 5% 1/16W	R0483	0790047	CHIP RESISTOR 5.6KOHM $\pm$ 5% 1/16W
R0402R	0790058	CHIP RESISTOR 39KOHM $\pm$ 5% 1/16W			[955/855/755]
R0403R	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0483	0790048	CHIP RESISTOR 6.8KOHM $\pm$ 5% 1/16W
R0405S	0790064	CHIP RESISTOR 100KOHM $\pm$ 5% 1/16W			[658/558/555/553]
R0408S	0790064	CHIP RESISTOR 100KOHM $\pm$ 5% 1/16W	R0486S	0790057	CHIP RESISTOR 33KOHM $\pm$ 5% 1/16W
R0409S	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0487S	0790057	CHIP RESISTOR 33KOHM $\pm$ 5% 1/16W
R0410M	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W	R0488L	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0410S	0104121	CHIP RESISTOR 27KOHM $\pm$ 1% 1/10W	R0488R	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0412M	0790069	CHIP RESISTOR 0.27MOHM $\pm$ 5% 1/16W	R0489L	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0413L	0790042	CHIP RESISTOR 2.2KOHM $\pm$ 5% 1/16W	R0489R	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0413R	0790042	CHIP RESISTOR 2.2KOHM $\pm$ 5% 1/16W	R0490L	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0414S	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0490R	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0415S	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0491L	0790054	CHIP RESISTOR 18KOHM $\pm$ 5% 1/16W
R0417L	0790075	CHIP RESISTOR 680KOHM $\pm$ 5% 1/16W	R0491R	0790054	CHIP RESISTOR 18KOHM $\pm$ 5% 1/16W
R0417M	0790042	CHIP RESISTOR 2.2KOHM $\pm$ 5% 1/16W	R0492L	0790043	CHIP RESISTOR 2.7KOHM $\pm$ 5% 1/16W
R0417R	0790075	CHIP RESISTOR 680KOHM $\pm$ 5% 1/16W	R0492R	0790043	CHIP RESISTOR 2.7KOHM $\pm$ 5% 1/16W
R0418L	0790045	CHIP RESISTOR 3.9KOHM $\pm$ 5% 1/16W	R0493L	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0418M	0790058	CHIP RESISTOR 39KOHM $\pm$ 5% 1/16W	R0493R	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0418R	0790045	CHIP RESISTOR 3.9KOHM $\pm$ 5% 1/16W	R0494L	0790048	CHIP RESISTOR 6.8KOHM $\pm$ 5% 1/16W
R0419L	0790029	CHIP RESISTOR 270 OHM $\pm$ 5% 1/16W	R0494R	0790048	CHIP RESISTOR 6.8KOHM $\pm$ 5% 1/16W
R0419R	0790029	CHIP RESISTOR 270 OHM $\pm$ 5% 1/16W	R0497	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R0420L	0790047	CHIP RESISTOR 5.6KOHM $\pm$ 5% 1/16W	R0501	0790049	CHIP RESISTOR 8.2KOHM $\pm$ 5% 1/16W
R0420M	0790039	CHIP RESISTOR 1.5KOHM $\pm$ 5% 1/16W	R0502	0790049	CHIP RESISTOR 8.2KOHM $\pm$ 5% 1/16W
R0420R	0790047	CHIP RESISTOR 5.6KOHM $\pm$ 5% 1/16W	R0504	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0421L	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0505	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0421R	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0506	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0422M	0790062	CHIP RESISTOR 68KOHM $\pm$ 5% 1/16W	R0507	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0423M	0790062	CHIP RESISTOR 68KOHM $\pm$ 5% 1/16W	R0508	0790049	CHIP RESISTOR 8.2KOHM $\pm$ 5% 1/16W
R0424M	0790057	CHIP RESISTOR 33KOHM $\pm$ 5% 1/16W	R0510	AQ00238R	CHIP RESISTOR 47KOHM $\pm$ 1% 1/16W
R0425M	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0511	0790057	CHIP RESISTOR 33KOHM $\pm$ 5% 1/16W
R0428M	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0512	0790044	CHIP RESISTOR 3.3KOHM $\pm$ 5% 1/16W
R0429R	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0513	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0430M	0790058	CHIP RESISTOR 39KOHM $\pm$ 5% 1/16W	R0514	0790049	CHIP RESISTOR 8.2KOHM $\pm$ 5% 1/16W
R0432	0790044	CHIP RESISTOR 3.3KOHM $\pm$ 5% 1/16W	R0516	0790049	CHIP RESISTOR 8.2KOHM $\pm$ 5% 1/16W
		[658/558/555/553]	R0517	0790049	CHIP RESISTOR 8.2KOHM $\pm$ 5% 1/16W
R0432	0790066	CHIP RESISTOR 150KOHM $\pm$ 5% 1/16W	R0518	0790049	CHIP RESISTOR 8.2KOHM $\pm$ 5% 1/16W
		[955/855/755]	R0519	0790049	CHIP RESISTOR 8.2KOHM $\pm$ 5% 1/16W
R0433	0790057	CHIP RESISTOR 33KOHM $\pm$ 5% 1/16W	R0522	0790049	CHIP RESISTOR 8.2KOHM $\pm$ 5% 1/16W
R0435S	0790075	CHIP RESISTOR 680KOHM $\pm$ 5% 1/16W	R0525	0790049	CHIP RESISTOR 8.2KOHM $\pm$ 5% 1/16W
R0436M	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W	R0529	AQ00211R	CHIP RESISTOR 4.3KOHM $\pm$ 1% 1/16W
R0436R	0790066	CHIP RESISTOR 150KOHM $\pm$ 5% 1/16W	R0531	0105192	CHIP RESISTOR 1KOHM $\pm$ 0.5% 1/16W
R0437M	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W	R0532	0104723	CHIP RESISTOR 4.7KOHM $\pm$ 1% 1/16W
R0445S	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0533	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W
R0447S	0790045	CHIP RESISTOR 3.9KOHM $\pm$ 5% 1/16W	R0534	0790038	CHIP RESISTOR 1.2KOHM $\pm$ 5% 1/16W
R0449	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0539	0104724	CHIP RESISTOR 10KOHM $\pm$ 1% 1/16W
R0451M	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0540	0105192	CHIP RESISTOR 1KOHM $\pm$ 0.5% 1/16W
R0453M	0790044	CHIP RESISTOR 3.3KOHM $\pm$ 5% 1/16W	R0541	0104723	CHIP RESISTOR 4.7KOHM $\pm$ 1% 1/16W
R0455M	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0545	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W
R0458M	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0546	0790042	CHIP RESISTOR 2.2KOHM $\pm$ 5% 1/16W
R0459M	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0549	0790076	CHIP RESISTOR 820KOHM $\pm$ 5% 1/16W
R0460	0790055	CHIP RESISTOR 22KOHM $\pm$ 5% 1/16W	R0550	AQ10274R	CHIP RESISTOR 46.4KOHM $\pm$ 0.5% 1/16W
R0461	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0551	0105207	CHIP RESISTOR 680OHM 1/16W
R0461M	0790048	CHIP RESISTOR 6.8KOHM $\pm$ 5% 1/16W	R0552	0104723	CHIP RESISTOR 4.7KOHM $\pm$ 1% 1/16W
R0462	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0556	AQ00198R	CHIP RESISTOR 1.5KOHM $\pm$ 1% 1/16W
R0471	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0557	AQ00192R	CHIP RESISTOR 820 OHM $\pm$ 1% 1/16W
R0472	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0558	AQ00214R	CHIP RESISTOR 5.6KOHM $\pm$ 1% 1/16W

SYMBOL NO	P-NO	DESCRIPTION	SYMBOL NO	P-NO	DESCRIPTION
R0561	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0723	0790042	CHIP RESISTOR 2.2KOHM $\pm$ 5% 1/16W
R0562	0790046	CHIP RESISTOR 4.7KOHM $\pm$ 5% 1/16W	R0724	0790032	CHIP RESISTOR 390 OHM $\pm$ 5% 1/16W
R0566	0790048	CHIP RESISTOR 6.8KOHM $\pm$ 5% 1/16W	R0725	0790044	CHIP RESISTOR 3.3KOHM $\pm$ 5% 1/16W
R0567	0790046	CHIP RESISTOR 4.7KOHM $\pm$ 5% 1/16W	R0728	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R0568	0104723	CHIP RESISTOR 4.7KOHM $\pm$ 1% 1/16W	R0733	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R0569	AQ00213R	CHIP RESISTOR 5.1KOHM $\pm$ 1% 1/16W	R0901	0790064	CHIP RESISTOR 100KOHM $\pm$ 5% 1/16W
R0583	0790023	CHIP RESISTOR 82 OHM $\pm$ 5% 1/16W	R0903	0790068	CHIP RESISTOR 220KOHM $\pm$ 5% 1/16W
R0585	0790073	CHIP RESISTOR 470KOHM $\pm$ 5% 1/16W	R0904	0790064	CHIP RESISTOR 100KOHM $\pm$ 5% 1/16W
R0597	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0905	0790064	CHIP RESISTOR 100KOHM $\pm$ 5% 1/16W
R0598	0790033	CHIP RESISTOR 470 OHM $\pm$ 5% 1/16W	R0906	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W
R0599	0790033	CHIP RESISTOR 470 OHM $\pm$ 5% 1/16W	R0907	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0601	0790046	CHIP RESISTOR 4.7KOHM $\pm$ 5% 1/16W	R0908	0105217	CHIP RESISTOR 150KOHM $\pm$ 0.5% 1/16W
R0602	0790046	CHIP RESISTOR 4.7KOHM $\pm$ 5% 1/16W	R0909	AQ10633R	CHIP RESISTOR 56KOHM $\pm$ 0.5% 1/16W
R0603	0790046	CHIP RESISTOR 4.7KOHM $\pm$ 5% 1/16W	R0912	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W
R0604	0790043	CHIP RESISTOR 2.7KOHM $\pm$ 5% 1/16W	R0913	0790064	CHIP RESISTOR 100KOHM $\pm$ 5% 1/16W
R0605	0790048	CHIP RESISTOR 6.8KOHM $\pm$ 5% 1/16W	R0914	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0606	AQ00223R	CHIP RESISTOR 12KOHM $\pm$ 1% 1/16W	R0915	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0607	0790064	CHIP RESISTOR 100KOHM $\pm$ 5% 1/16W	R0916	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0608	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0917	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W
R0609	0790053	CHIP RESISTOR 15KOHM $\pm$ 5% 1/16W	R0918	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W
R0610	AQ00223R	CHIP RESISTOR 12KOHM $\pm$ 1% 1/16W	R0919	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W
R0611	0790055	CHIP RESISTOR 22KOHM $\pm$ 5% 1/16W	R0920	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0612	0790045	CHIP RESISTOR 3.9KOHM $\pm$ 5% 1/16W	R0921	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0613	0790055	CHIP RESISTOR 22KOHM $\pm$ 5% 1/16W	R0922	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0614	0790055	CHIP RESISTOR 22KOHM $\pm$ 5% 1/16W	R0923	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0616	0790039	CHIP RESISTOR 1.5KOHM $\pm$ 5% 1/16W	R0924	0790045	CHIP RESISTOR 3.9KOHM $\pm$ 5% 1/16W
R0619	0790044	CHIP RESISTOR 3.3KOHM $\pm$ 5% 1/16W	R0925	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0620	0790042	CHIP RESISTOR 2.2KOHM $\pm$ 5% 1/16W	R0926	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0621	0790043	CHIP RESISTOR 2.7KOHM $\pm$ 5% 1/16W	R0928	0790075	CHIP RESISTOR 680KOHM $\pm$ 5% 1/16W
R0622	0790043	CHIP RESISTOR 2.7KOHM $\pm$ 5% 1/16W	R0929	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W
R0623	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0930	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W
R0624	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W	R0931	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W
R0628	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W	R0932	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W
R0640	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0933	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W
R0641	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0934	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W
R0642	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0935	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R0643	0105815	CHIP RESISTOR 0.47 OHM $\pm$ 10% 1/4W	R0938	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W
R0644	0105815	CHIP RESISTOR 0.47 OHM $\pm$ 10% 1/4W	R0939	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0662	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W	R0941	0790032	CHIP RESISTOR 390 OHM $\pm$ 5% 1/16W
R0664	0790002	CHIP RESISTOR 2.2 OHM $\pm$ 5% 1/16W	R0942	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R0665	0790002	CHIP RESISTOR 2.2 OHM $\pm$ 5% 1/16W	R0943	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R0666	0790002	CHIP RESISTOR 2.2 OHM $\pm$ 5% 1/16W	R0945	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R0667	0790058	CHIP RESISTOR 39KOHM $\pm$ 5% 1/16W	R0948	0790046	CHIP RESISTOR 4.7KOHM $\pm$ 5% 1/16W
R0668	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R0949	AQ00221R	CHIP RESISTOR 10KOHM $\pm$ 1% 1/16W
R0671	0790075	CHIP RESISTOR 680KOHM $\pm$ 5% 1/16W	R0950	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W
R0672	0790055	CHIP RESISTOR 22KOHM $\pm$ 5% 1/16W	R0951	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0681	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W	R0952	0790046	CHIP RESISTOR 4.7KOHM $\pm$ 5% 1/16W
R0682	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W	R0954	AQ00245R	CHIP RESISTOR 82KOHM $\pm$ 1% 1/16W
R0691	0790041	CHIP RESISTOR 1.8KOHM $\pm$ 5% 1/16W	R0955	AQ00227R	CHIP RESISTOR 18KOHM $\pm$ 1% 1/16W
R0692	0790041	CHIP RESISTOR 1.8KOHM $\pm$ 5% 1/16W	R0956	AQ00234R	CHIP RESISTOR 33KOHM $\pm$ 1% 1/16W
R0693	0790041	CHIP RESISTOR 1.8KOHM $\pm$ 5% 1/16W	R0957	AQ00247R	CHIP RESISTOR 100KOHM $\pm$ 1% 1/16W
R0694	0790047	CHIP RESISTOR 5.6KOHM $\pm$ 5% 1/16W	R0958	AQ00236R	CHIP RESISTOR 39KOHM $\pm$ 1% 1/16W
R0695	0790047	CHIP RESISTOR 5.6KOHM $\pm$ 5% 1/16W	R0959	0790046	CHIP RESISTOR 4.7KOHM $\pm$ 5% 1/16W
R0696	0790047	CHIP RESISTOR 5.6KOHM $\pm$ 5% 1/16W	R0960	AQ00221R	CHIP RESISTOR 10KOHM $\pm$ 1% 1/16W
R0701	0790046	CHIP RESISTOR 4.7KOHM $\pm$ 5% 1/16W	R0963	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0702	0790036	CHIP RESISTOR 820 OHM $\pm$ 5% 1/16W	R0965	0790036	CHIP RESISTOR 820 OHM $\pm$ 5% 1/16W
R0703	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0966	0790067	CHIP RESISTOR 180KOHM $\pm$ 5% 1/16W
R0706	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0967	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W
R0707	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0968	0790074	CHIP RESISTOR 560KOHM $\pm$ 5% 1/16W
R0709	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0969	0790033	CHIP RESISTOR 470 OHM $\pm$ 5% 1/16W
R0717	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0970	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0718	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0971	0790068	CHIP RESISTOR 220KOHM $\pm$ 5% 1/16W
R0719	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R0972	0790033	CHIP RESISTOR 470 OHM $\pm$ 5% 1/16W
R0721	0790049	CHIP RESISTOR 8.2KOHM $\pm$ 5% 1/16W	R0973	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R0722	0790032	CHIP RESISTOR 390 OHM $\pm$ 5% 1/16W	R0974	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W

SYMBOL NO	P-NO	DESCRIPTION	SYMBOL NO	P-NO	DESCRIPTION
R0975	0790077	CHIP RESISTOR 1MOHM+-5% 1/16W	R1163	0790064	CHIP RESISTOR 100KOHM+-5% 1/16W
R0976	0790046	CHIP RESISTOR 4.7KOHM+-5% 1/16W	R1164	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W
R0977	0790017	CHIP RESISTOR 33 OHM+-5% 1/16W	R1166	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W
R0978	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1167	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W
R0979	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1168	0790055	CHIP RESISTOR 22KOHM+-5% 1/16W
R0980	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1169	AQ00194R	CHIP RESISTOR 1.0KOHM+-1% 1/16W
R0981	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1170	AQ00194R	CHIP RESISTOR 1.0KOHM+-1% 1/16W
R0982	0790057	CHIP RESISTOR 33KOHM+-5% 1/16W	R1171	AQ00198R	CHIP RESISTOR 1.5KOHM+-1% 1/16W
R0983	0790057	CHIP RESISTOR 33KOHM+-5% 1/16W	R1172	AQ00198R	CHIP RESISTOR 1.5KOHM+-1% 1/16W
R0984	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1173	AQ00229R	CHIP RESISTOR 22KOHM+-1% 1/16W
R0985	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1175	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W
R0986	0790051	CHIP RESISTOR 10KOHM+-5% 1/16W	R1176	0790064	CHIP RESISTOR 100KOHM+-5% 1/16W
R0987	0790042	CHIP RESISTOR 2.2KOHM+-5% 1/16W	R1180	BM00141R	FILTER
R0988	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1181	BM00141R	FILTER
R0989	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1201	0790039	CHIP RESISTOR 1.5KOHM+-5% 1/16W
R0990	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1202	0790069	CHIP RESISTOR 0.27MOHM+-5% 1/16W
R0992	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1203	0790053	CHIP RESISTOR 15KOHM+-5% 1/16W
R0993	0790036	CHIP RESISTOR 820 OHM+-5% 1/16W	R1204	0790064	CHIP RESISTOR 100KOHM+-5% 1/16W
R0994	0790064	CHIP RESISTOR 100KOHM+-5% 1/16W	R1205	0790064	CHIP RESISTOR 100KOHM+-5% 1/16W
R0995	0790059	CHIP RESISTOR 47KOHM+-5% 1/16W	R1206	0790077	CHIP RESISTOR 1MOHM+-5% 1/16W
R0999	0790058	CHIP RESISTOR 39KOHM+-5% 1/16W	R1207	0790051	CHIP RESISTOR 10KOHM+-5% 1/16W
R1001	0790048	CHIP RESISTOR 6.8KOHM+-5% 1/16W	R1208	0790054	CHIP RESISTOR 18KOHM+-5% 1/16W
R1002	0790024	CHIP RESISTOR 100 OHM+-5% 1/16W	R1209	0790067	CHIP RESISTOR 180KOHM+-5% 1/16W
R1003	0790077	CHIP RESISTOR 1MOHM+-5% 1/16W	R1210	0790053	CHIP RESISTOR 15KOHM+-5% 1/16W
R1006	0790064	CHIP RESISTOR 100KOHM+-5% 1/16W	R1211	0790054	CHIP RESISTOR 18KOHM+-5% 1/16W
R1009	0103823	CHIP RESISTOR 220HM+-5% 0.1W	R1212	0790067	CHIP RESISTOR 180KOHM+-5% 1/16W
R1101	AQ00231R	CHIP RESISTOR 24KOHM+-1% 1/16W	R1213	0790053	CHIP RESISTOR 15KOHM+-5% 1/16W
R1112	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1214	0790052	CHIP RESISTOR 12KOHM+-5% 1/16W
R1113	0790028	CHIP RESISTOR 220 OHM+-5% 1/16W	R1215	0790052	CHIP RESISTOR 12KOHM+-5% 1/16W
R1114	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1216	AQ00231R	CHIP RESISTOR 24KOHM+-1% 1/16W
R1115	0790012	CHIP RESISTOR 12 OHM+-5% 1/16	R1218	0790064	CHIP RESISTOR 100KOHM+-5% 1/16W
R1116	0790012	CHIP RESISTOR 12 OHM+-5% 1/16	R1220	0790044	CHIP RESISTOR 3.3KOHM+-5% 1/16W
R1117	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1221	0790029	CHIP RESISTOR 270 OHM+-5% 1/16W
R1118	BM00137R	FILTER	R1222	0790046	CHIP RESISTOR 4.7KOHM+-5% 1/16W
R1119	BM00137R	FILTER	R1223	0790049	CHIP RESISTOR 8.2KOHM+-5% 1/16W
R1120	0790011	CHIP RESISTOR 10 OHM+-5% 1/16W	R1225	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W
R1121	0790059	CHIP RESISTOR 47KOHM+-5% 1/16W	R1226	0790051	CHIP RESISTOR 10KOHM+-5% 1/16W
R1131	0790055	CHIP RESISTOR 22KOHM+-5% 1/16W	R1227	0790047	CHIP RESISTOR 5.6KOHM+-5% 1/16W
R1132	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1303	AQ00214R	CHIP RESISTOR 5.6KOHM+-1% 1/16W
R1133	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1312	0790061	CHIP RESISTOR 56KOHM+-5% 1/16W
R1134	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1313	0790061	CHIP RESISTOR 56KOHM+-5% 1/16W
R1135	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1316	0790027	CHIP RESISTOR 180OHM+-5% 1/16W
R1136	0790034	CHIP RESISTOR 560 OHM+-5% 1/16W	R1317	0790027	CHIP RESISTOR 180OHM+-5% 1/16W
R1137	0790044	CHIP RESISTOR 3.3KOHM+-5% 1/16W	R1403	0790045	CHIP RESISTOR 3.9KOHM+-5% 1/16W
R1138	0790055	CHIP RESISTOR 22KOHM+-5% 1/16W	R1404	0790045	CHIP RESISTOR 3.9KOHM+-5% 1/16W
R1139	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1405	0790044	CHIP RESISTOR 3.3KOHM+-5% 1/16W
R1141	0790055	CHIP RESISTOR 22KOHM+-5% 1/16W	R1406	0790044	CHIP RESISTOR 3.3KOHM+-5% 1/16W
R1143	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1407	0790077	CHIP RESISTOR 1MOHM+-5% 1/16W
R1145	0790046	CHIP RESISTOR 4.7KOHM+-5% 1/16W	R1408	0790077	CHIP RESISTOR 1MOHM+-5% 1/16W
R1146	0790055	CHIP RESISTOR 22KOHM+-5% 1/16W	R1409	AQ00227R	CHIP RESISTOR 18KOHM+-1% 1/16W
R1147	0790057	CHIP RESISTOR 33KOHM+-5% 1/16W	R1410	AQ00227R	CHIP RESISTOR 18KOHM+-1% 1/16W
R1148	0790059	CHIP RESISTOR 47KOHM+-5% 1/16W	R1411	AQ00267R	CHIP RESISTOR 560KOHM 0.063W
R1149	0790055	CHIP RESISTOR 22KOHM+-5% 1/16W	R1412	AQ00267R	CHIP RESISTOR 560KOHM 0.063W
R1150	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1413	0790024	CHIP RESISTOR 100 OHM+-5% 1/16W
R1151	0790064	CHIP RESISTOR 100KOHM+-5% 1/16W	R1414	0790024	CHIP RESISTOR 100 OHM+-5% 1/16W
R1152	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1416	0790051	CHIP RESISTOR 10KOHM+-5% 1/16W
R1153	0790064	CHIP RESISTOR 100KOHM+-5% 1/16W	R1418	AQ00224R	CHIP RESISTOR 13KOHM+-1% 1/16W
R1154	0790055	CHIP RESISTOR 22KOHM+-5% 1/16W	R1419	AQ00224R	CHIP RESISTOR 13KOHM+-1% 1/16W
R1155	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1420	AQ00222R	CHIP RESISTOR 11KOHM+-1% 1/16W
R1156	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W	R1421	AQ00222R	CHIP RESISTOR 11KOHM+-1% 1/16W
R1157	0790055	CHIP RESISTOR 22KOHM+-5% 1/16W	R1424	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W
R1158	0790055	CHIP RESISTOR 22KOHM+-5% 1/16W	R1425	0790037	CHIP RESISTOR 1KOHM+-5% 1/16W
R1159	0790044	CHIP RESISTOR 3.3KOHM+-5% 1/16W	R5301	0790024	CHIP RESISTOR 100 OHM+-5% 1/16W
R1160	0790045	CHIP RESISTOR 3.9KOHM+-5% 1/16W	R5302	0790034	CHIP RESISTOR 560 OHM+-5% 1/16W
R1161	0790047	CHIP RESISTOR 5.6KOHM+-5% 1/16W	R5304	0790024	CHIP RESISTOR 100 OHM+-5% 1/16W

SYMBOL NO	P-NO	DESCRIPTION	SYMBOL NO	P-NO	DESCRIPTION
R5307	AQ00236R	CHIP RESISTOR 39KOHM $\pm$ 1% 1/16W	R5513	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R5308	AQ00232R	CHIP RESISTOR 27KOHM $\pm$ 1% 1/16W	R5514	0790036	CHIP RESISTOR 820 OHM $\pm$ 5% 1/16W
R5309	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W	R5515	0790055	CHIP RESISTOR 22KOHM $\pm$ 5% 1/16W
R5310	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W	R5518	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R5313	0790047	CHIP RESISTOR 5.6KOHM $\pm$ 5% 1/16W	R5519	0790064	CHIP RESISTOR 100KOHM $\pm$ 5% 1/16W
R5314	0790049	CHIP RESISTOR 8.2KOHM $\pm$ 5% 1/16W	R5522	0790034	CHIP RESISTOR 560 OHM $\pm$ 5% 1/16W
R5315	0790035	CHIP RESISTOR 680 OHM $\pm$ 5% 1/16W	R5523	0790055	CHIP RESISTOR 22KOHM $\pm$ 5% 1/16W
R5316	0790024	CHIP RESISTOR 100 OHM $\pm$ 5% 1/16W	R5524	0790034	CHIP RESISTOR 560 OHM $\pm$ 5% 1/16W
R5317	0790024	CHIP RESISTOR 100 OHM $\pm$ 5% 1/16W	R5525	0105572	METAL FILM RESISTOR 2.7KOHM $\pm$ 1% 1/10W
R5318	0790024	CHIP RESISTOR 100 OHM $\pm$ 5% 1/16W	R5526	0105572	METAL FILM RESISTOR 2.7KOHM $\pm$ 1% 1/10W
R5319	AQ00232R	CHIP RESISTOR 27KOHM $\pm$ 1% 1/16W	R5529	AQ00181R	CHIP RESISTOR 330 OHM $\pm$ 1% 1/16W
R5320	AQ00234R	CHIP RESISTOR 33KOHM $\pm$ 1% 1/16W	R5601	0790045	CHIP RESISTOR 3.9KOHM $\pm$ 5% 1/16W
R5325	AQ00232R	CHIP RESISTOR 27KOHM $\pm$ 1% 1/16W	R5603	0790011	CHIP RESISTOR 10 OHM $\pm$ 5% 1/16W
R5326	AQ00238R	CHIP RESISTOR 47KOHM $\pm$ 1% 1/16W	R5610	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W
R5331	0790072	CHIP RESISTOR 390KOHM $\pm$ 5% 1/16W	R5611	0790064	CHIP RESISTOR 100KOHM $\pm$ 5% 1/16W
R5332	0790034	CHIP RESISTOR 560 OHM $\pm$ 5% 1/16W	R5612	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W
R5336	0105203	CHIP RESISTOR 18KOHM $\pm$ 0.5% 1/16W	R5615	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W
R5338	0790071	CHIP RESISTOR 330KOHM $\pm$ 5% 1/16W	R5616	0790066	CHIP RESISTOR 150KOHM $\pm$ 5% 1/16W
R5339	0790064	CHIP RESISTOR 100KOHM $\pm$ 5% 1/16W	R5617	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R5340	0790061	CHIP RESISTOR 56KOHM $\pm$ 5% 1/16W	R5618	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R5343	0104256	CHIP RESISTOR 10MOHM $\pm$ 5% 1/10W	R5619	0790058	CHIP RESISTOR 39KOHM $\pm$ 5% 1/16W
R5345	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R5620	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R5346	0790064	CHIP RESISTOR 100KOHM $\pm$ 5% 1/16W	R5621	0790054	CHIP RESISTOR 18KOHM $\pm$ 5% 1/16W
R5347	0790048	CHIP RESISTOR 6.8KOHM $\pm$ 5% 1/16W	R5622	0790077	CHIP RESISTOR 1MOHM $\pm$ 5% 1/16W
R5349	0790048	CHIP RESISTOR 6.8KOHM $\pm$ 5% 1/16W	R5623	0790057	CHIP RESISTOR 33KOHM $\pm$ 5% 1/16W
R5351	0790072	CHIP RESISTOR 390KOHM $\pm$ 5% 1/16W	R5625	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R5354	0790068	CHIP RESISTOR 220KOHM $\pm$ 5% 1/16W	R5627	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R5357	0790067	CHIP RESISTOR 180KOHM $\pm$ 5% 1/16W	R5631	AQ10635R	CHIP RESISTOR 270KOHM $\pm$ 5% 1/16W
R5361	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R5632	0790057	CHIP RESISTOR 33KOHM $\pm$ 5% 1/16W
R5362	0790056	CHIP RESISTOR 27KOHM $\pm$ 5% 1/16W	R5633	AQ10633R	CHIP RESISTOR 56KOHM $\pm$ 0.5% 1/16W
R5363	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W	R5634	0105215	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W
R5364	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R5635	0104721	CHIP RESISTOR 100KOHM $\pm$ 0.5% 1/16W
R5365	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R5636	0790002	CHIP RESISTOR 2.2 OHM $\pm$ 5% 1/16W
R5366	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R5637	0790059	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W
R5367	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R5638	AQ10632R	CHIP RESISTOR 33KOHM $\pm$ 0.5% 1/16W
R5390	0790048	CHIP RESISTOR 6.8KOHM $\pm$ 5% 1/16W	R5639	0105197	CHIP RESISTOR 22KOHM $\pm$ 0.5% 1/16W
R5401	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W	R5642	AQ10632R	CHIP RESISTOR 33KOHM $\pm$ 0.5% 1/16W
R5402	0790068	CHIP RESISTOR 220KOHM $\pm$ 5% 1/16W	R5643	0105197	CHIP RESISTOR 22KOHM $\pm$ 0.5% 1/16W
R5404	0790046	CHIP RESISTOR 4.7KOHM $\pm$ 5% 1/16W	R5644	0790055	CHIP RESISTOR 22KOHM $\pm$ 5% 1/16W
R5405	AQ10634R	CHIP RESISTOR 120KOHM $\pm$ 0.5% 1/16W	R5651	0790045	CHIP RESISTOR 3.9KOHM $\pm$ 5% 1/16W
R5406	0105197	CHIP RESISTOR 22KOHM $\pm$ 0.5% 1/16W	R5654	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R5407	0104727	CHIP RESISTOR 15KOHM $\pm$ 1% 1/16W	R5655	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R5408	0790049	CHIP RESISTOR 8.2KOHM $\pm$ 5% 1/16W	R5656	0790045	CHIP RESISTOR 3.9KOHM $\pm$ 5% 1/16W
R5409	AQ10632R	CHIP RESISTOR 33KOHM $\pm$ 0.5% 1/16W	R5657	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W
R5410	0790053	CHIP RESISTOR 15KOHM $\pm$ 5% 1/16W	R5658	0790047	CHIP RESISTOR 5.6KOHM $\pm$ 5% 1/16W
R5411	0790057	CHIP RESISTOR 33KOHM $\pm$ 5% 1/16W	R5708	0790028	CHIP RESISTOR 220 OHM $\pm$ 5% 1/16W
R5412	0105213	CHIP RESISTOR 5.6KOHM $\pm$ 0.5% 1/16W	R5716	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W [955]
R5413	0105215	CHIP RESISTOR 47KOHM $\pm$ 5% 1/16W	R5708	0790034	CHIP RESISTOR 560 OHM $\pm$ 5% 1/16W [EXCEPT FOR 955]
R5414	0790035	CHIP RESISTOR 680 OHM $\pm$ 5% 1/16W			FILTER [955]
R5415	0790055	CHIP RESISTOR 22KOHM $\pm$ 5% 1/16W	R5709	BM00142R	
R5416	0790035	CHIP RESISTOR 680 OHM $\pm$ 5% 1/16W	R5709	BM00141R	FILTER [755, 558, 555, 553]
R5417	0104251	CHIP RESISTOR 2.2 OHM $\pm$ 5% 1/10W	R5717	0790024	CHIP RESISTOR 100 OHM $\pm$ 5% 1/16W
R5420	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R5718	0790044	CHIP RESISTOR 3.3KOHM $\pm$ 5% 1/16W
R5501	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	R5719	0790045	CHIP RESISTOR 3.9KOHM $\pm$ 5% 1/16W
R5502	AQ10634R	CHIP RESISTOR 120KOHM $\pm$ 0.5% 1/16W	R5720	0790047	CHIP RESISTOR 5.6KOHM $\pm$ 5% 1/16W
R5503	AQ10631R	CHIP RESISTOR 27KOHM $\pm$ 0.5% 1/16W	R5721	0790049	CHIP RESISTOR 8.2KOHM $\pm$ 5% 1/16W
R5504	0105196	CHIP RESISTOR 6.8KOHM $\pm$ 0.5% 1/16W	R5722	0790053	CHIP RESISTOR 15KOHM $\pm$ 5% 1/16W
R5505	0790046	CHIP RESISTOR 4.7KOHM $\pm$ 5% 1/16W	R5723	0790056	CHIP RESISTOR 27KOHM $\pm$ 5% 1/16W
R5506	0105193	CHIP RESISTOR 1.8KOHM $\pm$ 0.5% 1/16W	R5724	0790063	CHIP RESISTOR 82KOHM $\pm$ 5% 1/16W
R5507	0105209	CHIP RESISTOR 3.3KOHM $\pm$ 0.5% 1/16W	R9401	0790052	CHIP RESISTOR 12KOHM $\pm$ 5% 1/16W
R5508	0105196	CHIP RESISTOR 6.8KOHM $\pm$ 0.5% 1/16W	R9402	0790052	CHIP RESISTOR 12KOHM $\pm$ 5% 1/16W
R5509	0790039	CHIP RESISTOR 1.5KOHM $\pm$ 5% 1/16W	R9403	0790038	CHIP RESISTOR 1.2KOHM $\pm$ 5% 1/16W
R5510	0790046	CHIP RESISTOR 4.7KOHM $\pm$ 5% 1/16W	R9404	0790037	CHIP RESISTOR 1KOHM $\pm$ 5% 1/16W
R5511	0790039	CHIP RESISTOR 1.5KOHM $\pm$ 5% 1/16W	D0001	5337372	DIODE SB07-03C
R5512	0790051	CHIP RESISTOR 10KOHM $\pm$ 5% 1/16W	D0002	CC10291R	DIODE 1SS353

SYMBOL NO	P-NO	DESCRIPTION	SYMBOL NO	P-NO	DESCRIPTION
D0003	5337422	DIODE DA221	IC5501	CK18431R	IC TL5001CD
D0101	5337422	DIODE DA221	IC5502	1351761	IC NJM2406F
D0203	5337421	DIODE DAN222	IC5601	CK22411U	IC LZ9GH20 [955]
D0204	5337352	DIODE MA132WA	IC5601	CK22421U	IC LZ9GH18 [755/558/555/553]
D0205	5337352	DIODE MA132WA	IC5601	CK21941U	IC LZ9GH16 [855/658]
D0206	CC10291R	DIODE 1SS353	IC5602	CK15331R	IC NJM3414AV
D0207	CC10291R	DIODE 1SS353	Q0001	CA11671R	TRANSISTOR FY4ADJ-03A
D0552	5337352	DIODE MA132WA	Q0002	CA10271R	TRANSISTOR 2SB1424
D0553	5337352	DIODE MA132WA	Q0003	1323279	TRANSISTOR DTC114YE
D0901	5337352	DIODE MA132WA	Q0004	CA11661R	TRANSISTOR 2SK2035
D0902	CC10291R	DIODE 1SS353	Q0101	1323301	TRANSISTOR 2SB1219
D0907	5337372	DIODE SB07-03C	Q0102	1323294	TRANSISTOR 2SA1774RS
D0909	CC10291R	DIODE 1SS353	Q0103	1323294	TRANSISTOR 2SA1774RS
D0910	CC10291R	DIODE 1SS353	Q0104	1323286	TRANSISTOR UMH9N
D1002	CC10291R	DIODE 1SS353	Q0105	1323301	TRANSISTOR 2SB1219
D1101	5337352	DIODE MA132WA	Q0107	1323291	TRANSISTOR 2SC4617
D1103	5337352	DIODE MA132WA	Q0108	1323279	TRANSISTOR DTC114YE
D1105	5337352	DIODE MA132WA	Q0109	1323294	TRANSISTOR 2SA1774RS
D1106	5337352	DIODE MA132WA	Q0110	CA11273R	TRANSISTOR 2SA1037K-S
D1301	5337422	DIODE DA221	Q0111	1323283	TRANSISTOR UMH1N
D1302	CC10291R	DIODE 1SS353	Q0112	1323291	TRANSISTOR 2SC4617
D5301	CC10331R	DIODE HVU200A	Q0113	1323294	TRANSISTOR 2SA1774RS
D5401	CC10291R	DIODE 1SS353	Q0116	1323279	TRANSISTOR DTC114YE
D5402	CC10291R	DIODE 1SS353	Q0117	1323279	TRANSISTOR DTC114YE
D5403	5326022	DIODE MA160-M1D	Q0118	1323291	TRANSISTOR 2SC4617
D5404	5337351	DIODE MA132WK	Q0119	1323291	TRANSISTOR 2SC4617
D5501	CC10291R	DIODE 1SS353	Q0123	1323252	TRANSISTOR XP4501
D5601	CC10331R	DIODE HVU200A	Q0130	1323279	TRANSISTOR DTC114YE
D5602	CC10331R	DIODE HVU200A	Q0131	1323279	TRANSISTOR DTC114YE
IC0001	CK22711R	IC MM6564XFBF	Q0133	1323287	TRANSISTOR UMD9N
IC0101	1366631	IC HA118189MP	Q0139	1323286	TRANSISTOR UMH9N
IC0102	CK21231R	IC UPC5023GS146	Q0140	1323291	TRANSISTOR 2SC4617
IC0201	CK21292U	IC HG73C061TE	Q0144	1323294	TRANSISTOR 2SA1774RS
IC0202	CK22721U	IC MSM54V16258A45	Q0203	1323294	TRANSISTOR 2SA1774RS
IC0203	CK21261R	IC BA7071F	Q0206	1323252	TRANSISTOR XP4501
IC0204	CK21251R	IC UPC5023GS153	Q0395	1323279	TRANSISTOR DTC114YE
IC0401	CK12241	IC HA118193F [955/855/755]	Q0401L	1323279	TRANSISTOR DTC114YE
IC0401	CK20272R	IC LA7458W [658/558/555/553]	Q0401R	1323279	TRANSISTOR DTC114YE
IC0402S	CK16471R	IC TDA7052AT	Q0402	1323279	TRANSISTOR DTC114YE
IC0403S	CK22341R	IC NJM2112V-TE1	Q0403L	1323291	TRANSISTOR 2SC4617
IC0551	CK16251U	IC BA9735KV	Q0403M	1323292	TRANSISTOR 2SA1774
IC0553	CK20191R	IC P020WZ51	Q0403R	1323291	TRANSISTOR 2SC4617
IC0601	CK18321R	IC UPC5023GS-122-E1	Q0404	1323291	TRANSISTOR 2SC4617
IC0631	CK18331R	IC LB1950V-TLR	Q0411	1323301	TRANSISTOR 2SB1219
IC0651	CK22031R	IC LB1991V	Q0412	1323279	TRANSISTOR DTC114YE
IC0671	1366651	IC BA6417F	Q0414S	1323279	TRANSISTOR DTC114YE
IC0901	CK21316U	IC CXP87248A-E4R	Q0415	1323291	TRANSISTOR 2SC4617
IC0902	CK21711R	IC NJU7284EV (TE1)	Q0417M	1323292	TRANSISTOR 2SA1774
IC0904	CK16993R	IC UPD6461GS-942-E1	Q0551	1308011	TRANSISTOR MPL1
IC0904	CK16994R	IC UPD6461GS-941-E1	Q0552	CA10271R	TRANSISTOR 2SB1424
IC0906	CK18301R	IC SN74AHC126PW	Q0553	1308011	TRANSISTOR MPL1
IC0907	CE10171R	MODULE GP1U101X	Q0555	CA10271R	TRANSISTOR 2SB1424
IC1101	CK21332U	IC HD49323AF	Q0556	1323279	TRANSISTOR DTC114YE
IC1102	CK20631U	IC HG73C012TE	Q0557	CA10271R	TRANSISTOR 2SB1424
IC1103	CK12061R	IC UPD16510GR	Q0558	1323291	TRANSISTOR 2SC4617
IC1104	CK22353U	IC HD6432237M03TE	Q0559	1308011	TRANSISTOR MPL1
IC1105	CK21351R	IC X25097V1-2.7	Q0561	1308011	TRANSISTOR MPL1
IC1201	CK20621R	IC UPD5023GS-147-GJG	Q0562	1308011	TRANSISTOR MPL1
IC1301	CK17992R	IC UPD16833AG3	Q0563	1323279	TRANSISTOR DTC114YE
IC1401	FU10321	SENSOR GYRO (ENC-03JA-03)	Q0570	CA10271R	TRANSISTOR 2SB1424
IC1402	FU10322	SENSOR GYRO (ENC-03JB-03)	Q0571	1323291	TRANSISTOR 2SC4617
IC1403	CK21271R	IC NJM064V	Q0602	1323294	TRANSISTOR 2SA1774RS
IC5301	CK18373U	IC IR3Y29BM	Q0603	1323291	TRANSISTOR 2SC4617
IC5302	CK16691R	IC M62352GP	Q0604	1323291	TRANSISTOR 2SC4617
IC5401	CK18431R	IC TL5001CD	Q0901	1323294	TRANSISTOR 2SA1774RS

SYMBOL NO	P-NO	DESCRIPTION	SYMBOL NO	P-NO	DESCRIPTION
Q0902	1323291	TRANSISTOR 2SC4617	L0116	BA10145R	COIL
Q0904	1323294	TRANSISTOR 2SA1774RS	L0117	BA10154R	COIL 82UH
Q0905	5328975	TRANSISTOR 2SC2412K	L0118	BA10318R	COIL 470UH
Q0907	1323279	TRANSISTOR DTC114YE	L0201	BA10582R	COIL 47UH
Q0909	1323279	TRANSISTOR DTC114YE	L0202	BA10582R	COIL 47UH
Q0911	1323291	TRANSISTOR 2SC4617	L0203	BA10582R	COIL 47UH
Q0913	1323287	TRANSISTOR UMD9N	L0204	BA10142R	COIL
Q0914	1323279	TRANSISTOR DTC114YE	L0205	BA10141R	COIL 100UH
Q0915	1323279	TRANSISTOR DTC114YE	L0207	BA10582R	COIL 47UH
Q0916	1323291	TRANSISTOR 2SC4617	L0208	BA10582R	COIL 47UH
Q0917	1323287	TRANSISTOR UMD9N	L0301	BA10582R	COIL 47UH
Q1001	5328221	TRANSISTOR 2SC2620-QC	L0350	BA10582R	COIL 47UH
Q1201	1323291	TRANSISTOR 2SC4617	L0401	BA10582R	COIL 47UH
Q1202	1323291	TRANSISTOR 2SC4617	L0403	BA10582R	COIL 47UH
Q1203	1323142	TRANSISTOR 2SC2411K	L0405	BA10334R	COIL 10UH
Q1301	1323286	TRANSISTOR UMH9N	L0551	BA10691R	COIL
Q1401	1323279	TRANSISTOR DTC114YE	L0552	BA10693R	COIL
Q1402	1323252	TRANSISTOR XP4501	L0554	BA10695R	COIL
Q5301	1323294	TRANSISTOR 2SA1774RS	L0556	BA10691R	COIL
Q5302	1323271	TRANSISTOR DTC144EE	L0558	BA10577R	COIL 10UH
Q5303	1323293	TRANSISTOR 2SC4617 (R/S)	L0559	BA10582R	COIL 47UH
Q5304	1323293	TRANSISTOR 2SC4617 (R/S)	L0560	BA10582R	COIL 47UH
Q5390	1323271	TRANSISTOR DTC144EE	L0561	BA10695R	COIL
Q5401	1323272	TRANSISTOR DTA144EE	L0563	BA10691R	COIL
Q5402	1323271	TRANSISTOR DTC144EE	L0564	BA10695R	COIL
Q5403	1323294	TRANSISTOR 2SA1774RS	L0565	BA10695R	COIL
Q5404	1323271	TRANSISTOR DTC144EE	L0601	BA10579R	COIL 22UH
Q5405	1323293	TRANSISTOR 2SC4617 (R/S)	L0902	BA10145R	COIL
Q5406	CA10793R	TRANSISTOR 2SB1122ST	L0903	BA10334R	COIL 10UH
Q5501	1323272	TRANSISTOR DTA144EE	L0904	BA10577R	COIL 10UH
Q5502	1323279	TRANSISTOR DTC114YE	L0906	BA10579R	COIL 22UH
Q5503	1323271	TRANSISTOR DTC144EE	L0907	BA10577R	COIL 10UH
Q5504	1323271	TRANSISTOR DTC144EE	L0908	BA10336R	COIL 47UH
Q5505	1323293	TRANSISTOR 2SC4617 (R/S)	L0909	BA10334R	COIL 10UH
Q5506	1323293	TRANSISTOR 2SC4617 (R/S)	L1101	BA10336R	COIL 47UH
Q5507	1323271	TRANSISTOR DTC144EE	L1102	BA10577R	COIL 10UH
Q5509	1323271	TRANSISTOR DTC144EE	L1104	BA10334R	COIL 10UH
Q5510	1323293	TRANSISTOR 2SC4617 (R/S)	L1105	BA10577R	COIL 10UH
Q5511	CA10771R	TRANSISTOR FP102-TL	L1106	BA10577R	COIL 10UH
Q5512	1323012	TRANSISTOR 2SC3647	L1107	BA10577R	COIL 10UH
Q5513	1323012	TRANSISTOR 2SC3647	L1108	BA10577R	COIL 10UH
Q5607	1323279	TRANSISTOR DTC114YE	L1301	0773002	COIL 22UH
Q5611	1323279	TRANSISTOR DTC114YE	L5301	BA10577R	COIL 10UH
Q5612	1323279	TRANSISTOR DTC114YE	L5302	BA10582R	COIL 47UH
Q5613	1323279	TRANSISTOR DTC114YE	L5304	BA10149R	COIL 33UH
Q5614	1323279	TRANSISTOR DTC114YE	L5305	BA10577R	COIL 10UH
Q5615	1323272	TRANSISTOR DTA144EE	L5401	BA10577R	COIL 10UH
Q9401	1323291	TRANSISTOR 2SC4617	L5402	BA10584R	COIL 100UH
ZD0404	CC10947R	DIODE MA8075	L5403	BA10584R	COIL 100UH
ZD0405	CC10937R	ZENER DIODE MA8056-M	L5404	BA10584R	COIL 100UH
ZD5601	CC10575R	DIODE RD5.1UMB2	L5501	BA10333R	COIL 4.7UH
ZD5701	CC10448R	DIODE MA3056M	L5502	BA10136R	COIL 22UH
T0551	5148333	TRANSFORMER, POWER	L5503	BA10137R	COIL 150UH
T5401	BC10211R	TRANSFORMER, DC	L5601	BA10577R	COIL 10UH
T5501	BC10301R	COIL	L5602	BA10577R	COIL 10UH
L0101	BA10334R	COIL 10UH	L5603	BA10577R	COIL 10UH
L0102	BA10582R	COIL 47UH	L5604	BA10156R	COIL 2.7UH [955]
L0103	BA10148R	COIL 27UH	L5604	BA10148R	COIL 27UH [755/558/555/553]
L0105	0773117	CHOKE COIL 8.2UH±5%	L5604	BA10146R	COIL 18UH [855/658]
L0107	BA10315R	COIL 150UH	LED0901	CC11251R	DIODE SML-010MT
L0108	0773135	CHOKE COIL 180UH±5%	LED0902	CC10771R	DIODE SML-010LT
L0109	BA10317R	COIL 330UH	X0201	BL10932R	CRYSTAL
L0110	BA10147R	COIL 22UH	X0901	BL10572R	CRYSTAL
L0113	BA10149R	COIL 33UH	X0902	BL10311R	CRYSTAL
L0114	BA10147R	COIL 22UH	X5301	BL10193R	CRYSTAL

SYMBOL NO	P-NO	DESCRIPTION	SYMBOL NO	P-NO	DESCRIPTION
BL0394	BM00136R	FILTER	C2013	0893086	CERAMIC CHIP 0.1UF+80-20% 50V
BL0395	BM00136R	FILTER	C2014	0880194	CAPACITOR 0.1UF+5% 50V
BL0902	BM00142R	FILTER	C2015	0202151	CERAMIC CHIP 2200PF+5% 50V
BL0903	BM00142R	FILTER	C2016	0893044	CERAMIC CHIP 0.01UF+10% 50V
△F0551	FM10211R	FUSE	C2017	0806145	ELECTROLYTIC 1UF 50V
△F0552	FM10211R	FUSE	C2018	0893062	CERAMIC CHIP 1UF+80-20% 16V
△F0553	FM10211R	FUSE	R2002	0103869	CHIP RESISTOR 150KOHM+5% 0.1W
JK0200	5695292	JACK	R2003	0103876	CHIP RESISTOR 560KOHM+5% 0.1W
PG0001	1830309	CONNECTOR	R2004	0103879	CHIP RESISTOR 1MOHM+5% 0.1W
PG0101	EA11472R	PLUG	R2005	0103879	CHIP RESISTOR 1MOHM+5% 0.1W
PG0201	1830109	CONNECTOR	R2006	0103819	CHIP RESISTOR 10 OHM+5% 0.1W
PG0401	5668671	MINI PLUG [658/558/555/553]	R2007	0103879	CHIP RESISTOR 1MOHM+5% 0.1W
PG0401	5668673	MINI PLUG [955/855/755]	R2008	0103879	CHIP RESISTOR 1MOHM+5% 0.1W
PG0402	5669191	PLUG	R2009	0103847	CHIP RESISTOR 2.2KOHM+5% 0.1W
PG0405	EA10942	PLUG	R2011	0103845	CHIP RESISTOR 1.5KOHM+5% 0.1W
PG0552	5668671	MINI PLUG	R2012	0103857	CHIP RESISTOR 15KOHM+5% 0.1W
PG0601	5692362	MINI PLUG	R2013	0103845	CHIP RESISTOR 1.5KOHM+5% 0.1W
PG0602	EA11474R	PLUG	R2014	0103846	CHIP RESISTOR 1.8KOHM+5% 0.1W
PG0603	EA11471R	PLUG	R2015	0103863	CHIP RESISTOR 47KOHM+5% 0.1W
PG0604	5668671	MINI PLUG	R2016	0103814	CHIP RESISTOR 3.9 OHM+10% 0.1W
PG0701	5668672	PLUG	R2017	0103846	CHIP RESISTOR 1.8KOHM+5% 0.1W
PG0901	EA11473R	PLUG	R2018	0103863	CHIP RESISTOR 47KOHM+5% 0.1W
PG0902	EA10653R	PLUG	R2019	0103848	CHIP RESISTOR 2.7KOHM+5% 0.1W
PG0903	5669193	MINI PLUG	R2020	0103867	CHIP RESISTOR 100KOHM+5% 0.1W
PG0904	5669198	PLUG	R2022	0103831	CHIP RESISTOR 100 OHM+5% 0.1W
PG0907	5668672	PLUG	R2023	0103882	JUMPER CHIP RESISTOR
PG0908	5669031	MINI PLUG	R2024	0103879	CHIP RESISTOR 1MOHM+5% 0.1W
PG1001	1830117	CONNECTOR	R2025	0103874	CHIP RESISTOR 390KOHM+5% 0.1W
PG1101	1830118	CONNECTOR	R2026	0103843	CHIP RESISTOR 1KOHM+5% 0.1W
PG1103	1830355	PLUG	R2027	0103843	CHIP RESISTOR 1KOHM+5% 0.1W
PG1104	5668751	MINI PLUG	RT2001	5035204	SEMI VARIABLE 2.2MOHM
PG1105	5669166	PLUG	RT2002	5030251	SEMI VARIABLE 1MOHM
PG1106	5669191	PLUG	RT2003	5040103	SEMI VARIABLE 470 OHM
PG1301	EA10346R	PLUG	D2001	5337137	DIODE MA141K
PG5301	EA10133R	PLUG	D2002	5337322	DIODE MA199
PG5501	EA10132R	PLUG	IC2001	1365881	IC HA118179F
PG5701	5669198	PLUG	Q2001	5323831	TRANSISTOR 2SD974
PG5702	EA11071R	PLUG	Q2002	5326685	TRANSISTOR XN1B301
PG5703	5669191	PLUG	△T2001	5240568	TRANS
SW0701	FB10201R	SWITCH	L2001	0773003	COIL 47UH
SW0702	FB10201R	SWITCH	L2002	5244016	COIL
SW0902	FB10271R	SWITCH	△CS2001	EF11242	SOCKET,CRT
SW0903	FB10271R	SWITCH	PG2001	5669631	CONNECTOR
SW0904	FB10271R	SWITCH	PG2002	5668469	PLUG
SW0905	FB10271R	SWITCH	△TF2001	5721352	FUSE
SW1101	1742011	SWITCH			
SW1102	5621951	SWITCH			
SW5701	FB10201R	SWITCH			
SW5702	5634862	SWITCH			
SW5703	5634862	SWITCH			
SW5704	FC10161R	SWITCH			
B/W EVF[EMQ]SECTION					
C2001	0806169	ELECTROLYTIC 47UF 16V			
C2002	0806169	ELECTROLYTIC 47UF 16V			
C2003	0806146	ELECTROLYTIC 2.2UF 50V			
C2004	0268437	POLYPROPYLENE 4700PF+5%50V			
C2005	0207709	CAPACITOR 47UF+20% 35V			
C2006	0249655	CERAMIC CHIP 1000PF+10% 1000V			
C2007	0249656	CERAMIC CHIP 1000PF+10% 500V			
C2008	0806146	ELECTROLYTIC 2.2UF 50V			
C2009	0893086	CERAMIC CHIP 0.1UF+80-20% 50V			
C2011	0209852	CERAMIC CHIP 180PF+5% 50V			
C2012	0893086	CERAMIC CHIP 0.1UF+80-20% 50V			

CHAPTER 6

SCHEMATIC, CIRCUIT BOARD AND BLOCK DIAGRAMS/ MICROPROCESSOR PIN FUNCTION TABLES

Cautions when using schematic diagrams

Caution for safety

The parts marked  are critical for safety. Be sure to use the specified parts to ensure safety when replacing them.

1. Values in schematic diagrams

The values, dielectric strength (power capacitance) and tolerances of the resistors (excluding variable resistors) and capacitors are indicated in the schematic diagrams using abbreviations.

[Resistors]

Item	Indication
Value	No indication Ω K k Ω M M Ω
Tolerance	No indication $\pm 5\%$ (All tolerances other than $\pm 5\%$ are indicated in the schematic diagrams)
Power capacitance	No indication 1/8W (1/16W for leadless resistors without indication) All capacitances other than the above are indicated in the schematic diagrams.

[Capacitors]

Item	Indication
Value	No indication μF P pF
Dielectric strength	No indication 50V (All dielectric strengths other than 50V are indicated in the schematic diagrams.)

[Coils]

Item	Indication
Value	μ μH m mH

Cautions when using circuit board diagrams

1. Identifications of sides A/B in circuit board diagrams

- 1) Board having a pattern on one side and parts on both sides.

Side A: Shows discrete parts, viewed from the pattern side.

Side B: Shows leadless parts, viewed from the pattern side.

- 2) Board having patterns on both sides and parts on both sides.

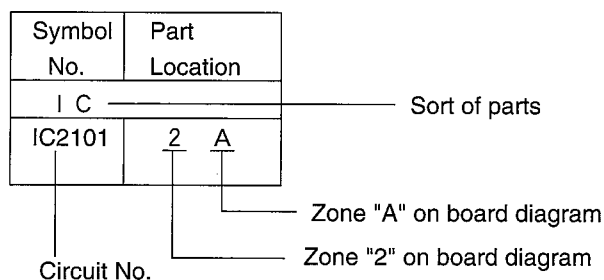
Side A: Shows parts and patterns which can be seen when the case is opened.

Side B: Shows parts and the pattern on the back of side A.

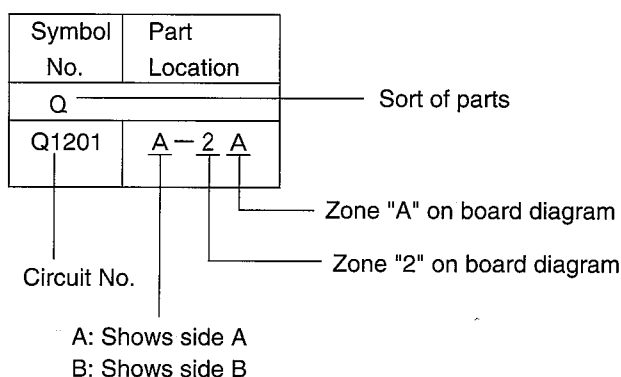
2. Table for indexing locations of parts

This table shows locations of each part on the circuit board diagrams. The locations are indicated using the guide scales on the external lines of diagrams.

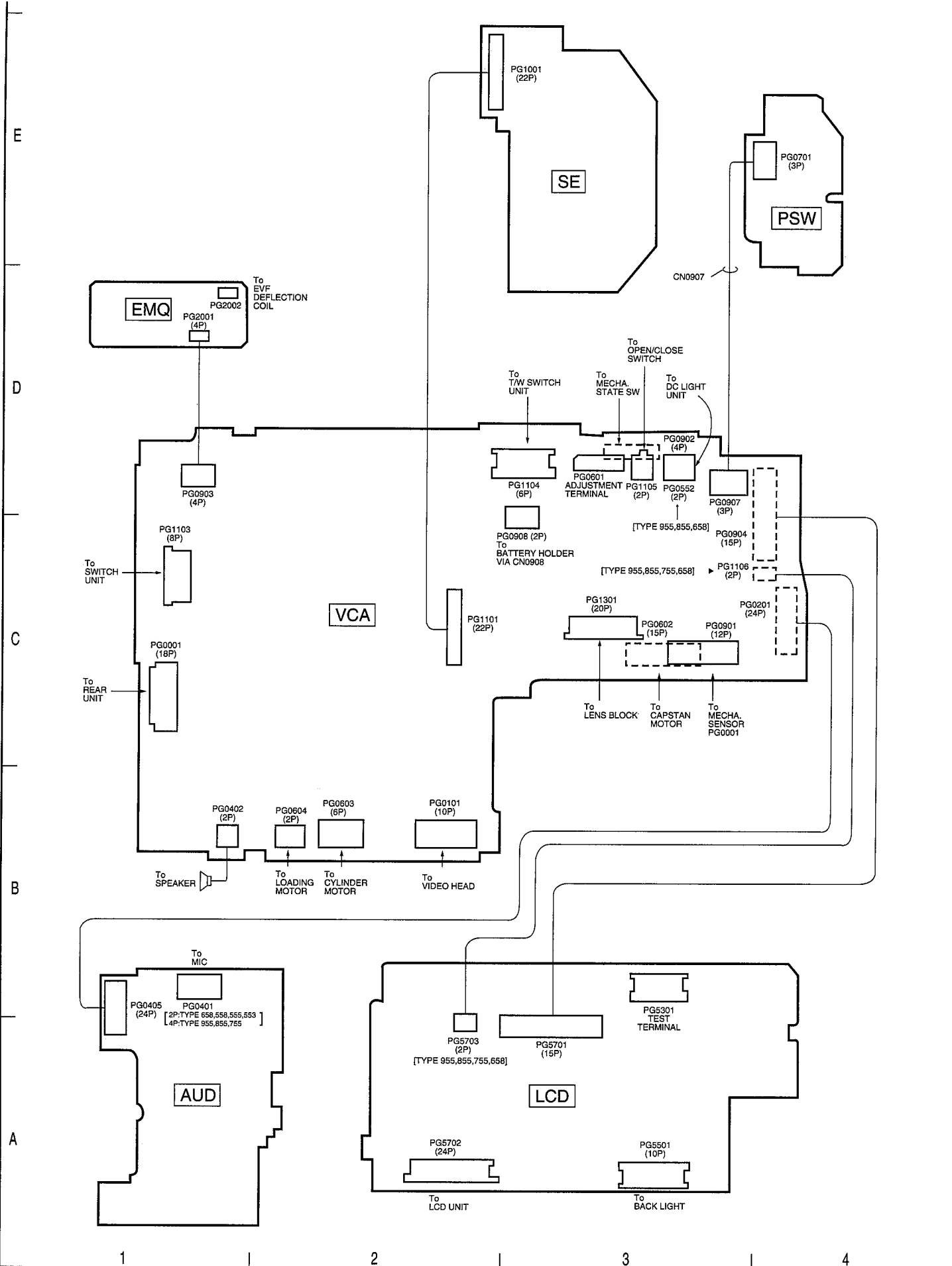
1) In case of one-layer board



2) In case of side A/B indication board



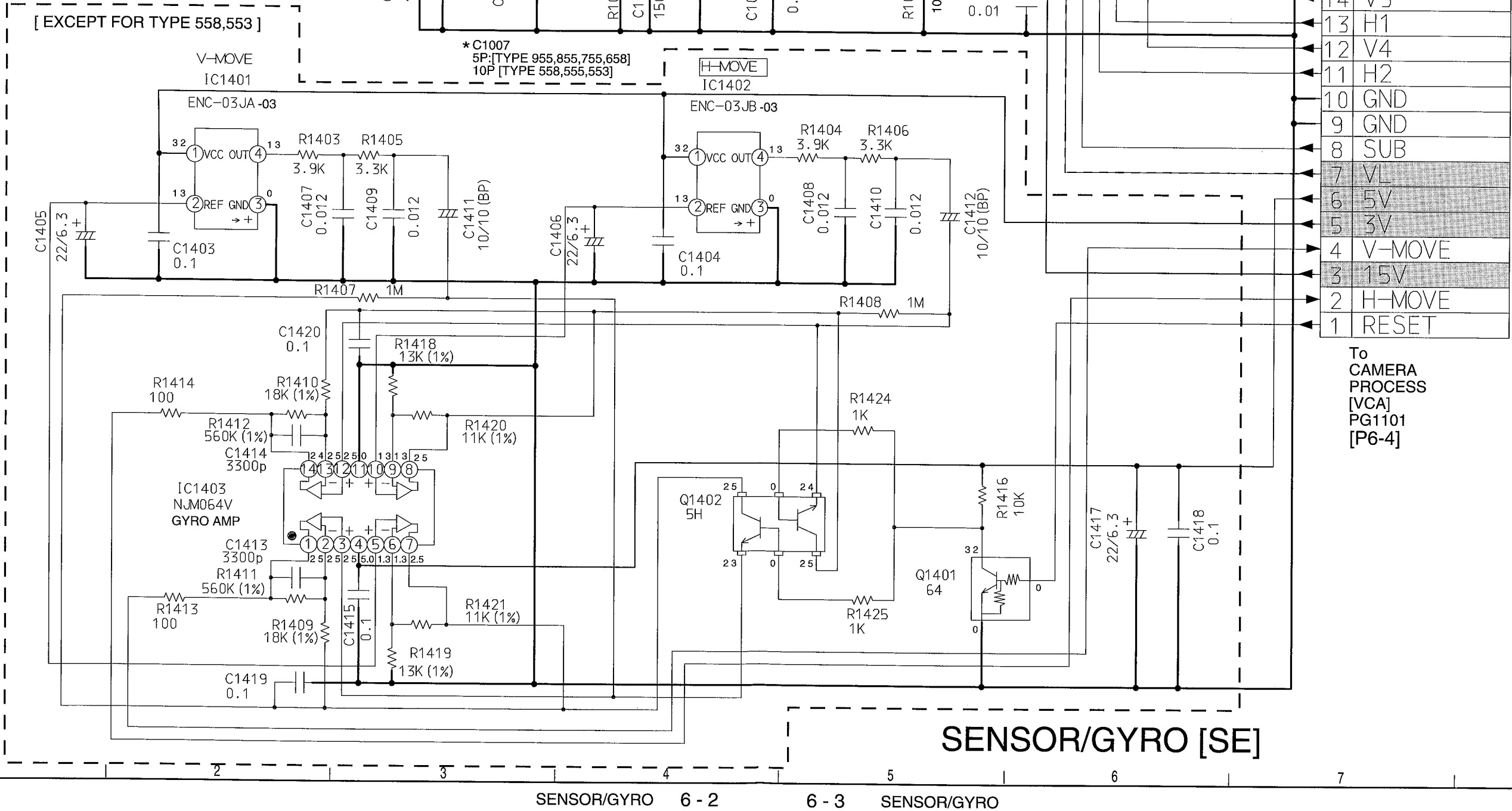
INTERNAL WIRING DIAGRAM



SENSOR/GYRO [SE] SCHEMATIC DIAGRAM

CODE	PART NAME
QC	2SC2620
5H	XP4501
64	DTC114YE

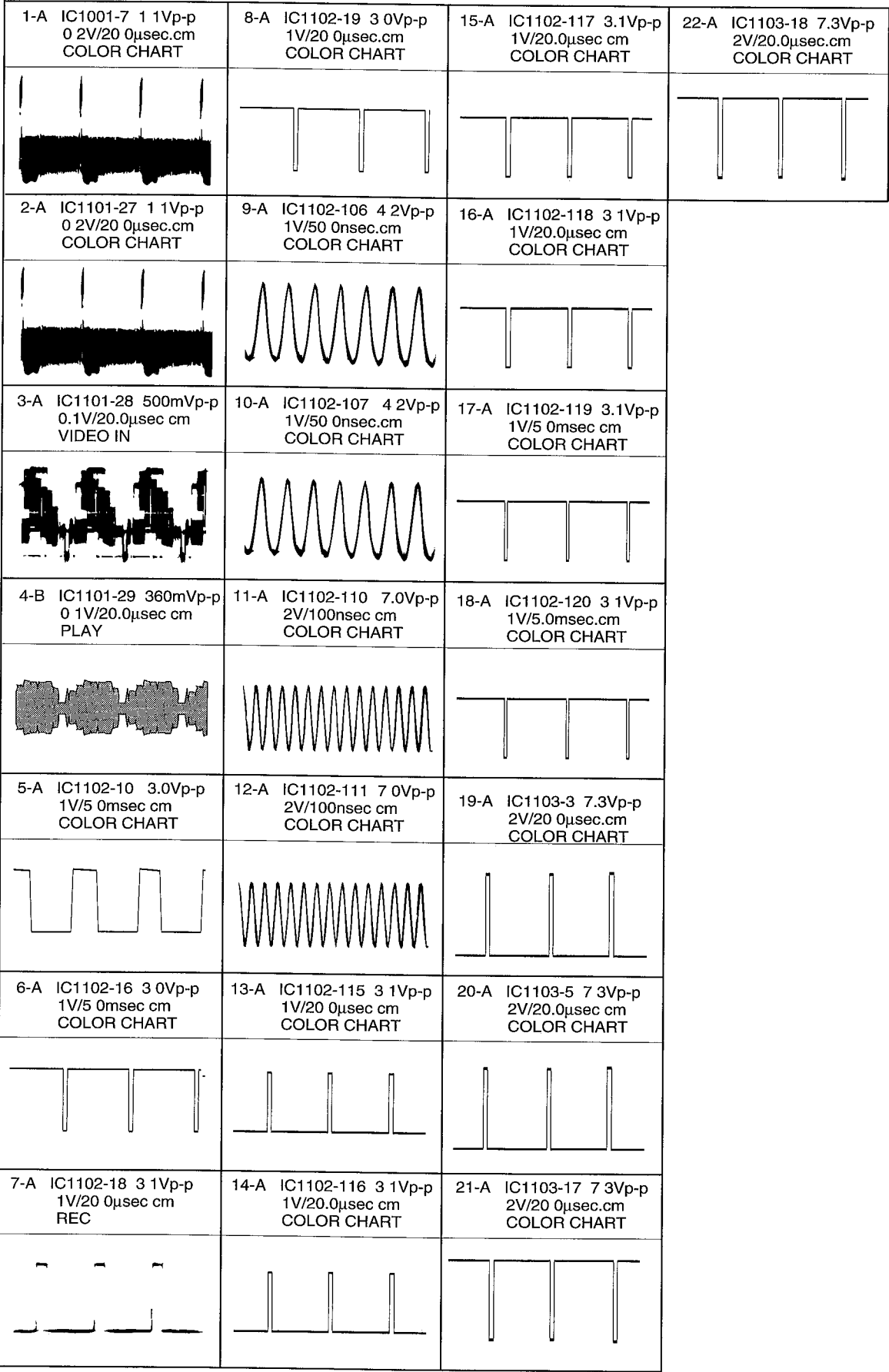
NOTE: VOLTAGES ARE MEASURED WHEN CAMERA IS
POINTED AT THE COLOR BAR CHART
○ - WAVEFORMS No



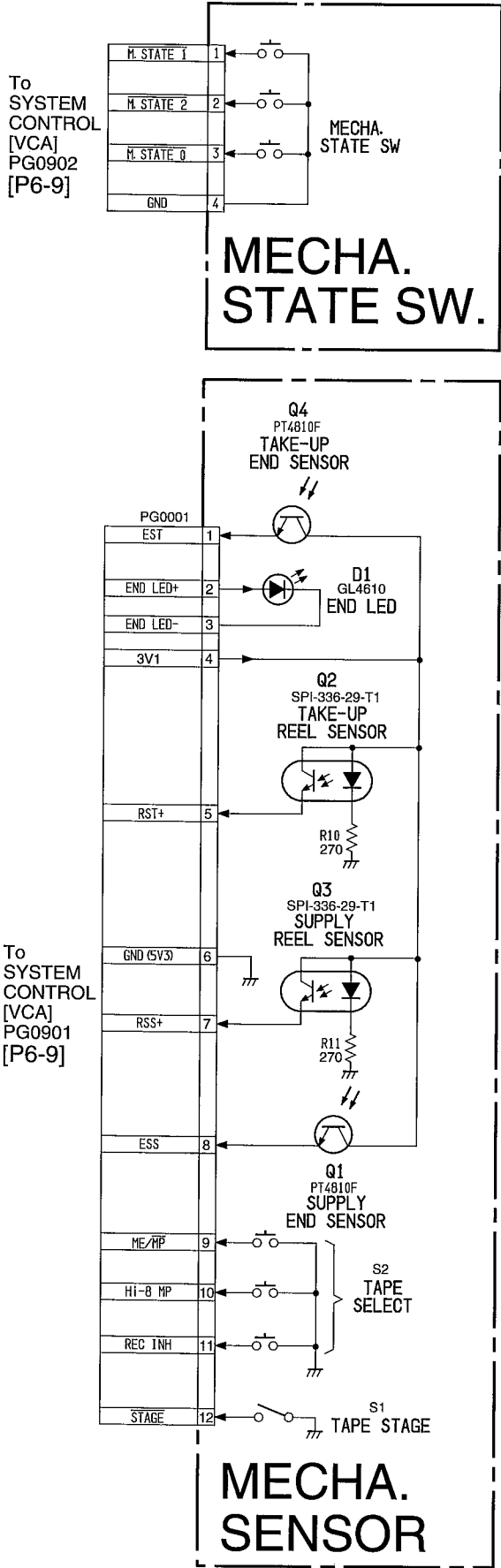
9



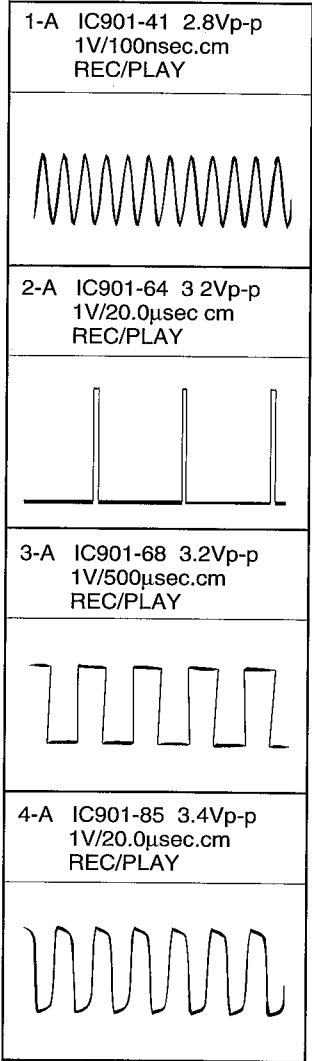
CAMERA WAVEFORMS



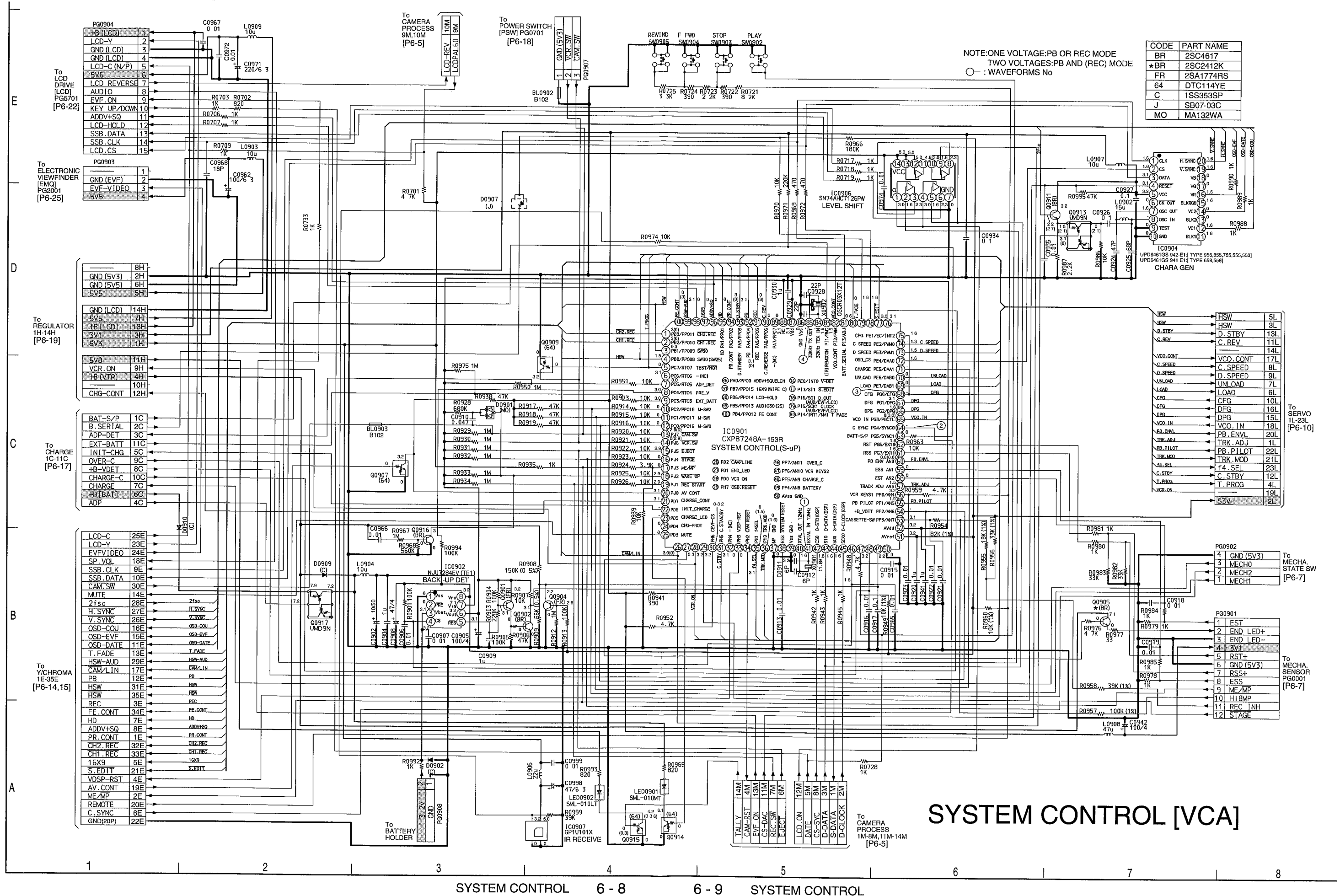
MECHA.STATE SW/MECHA.SENSOR
SCHEMATIC DIAGRAM



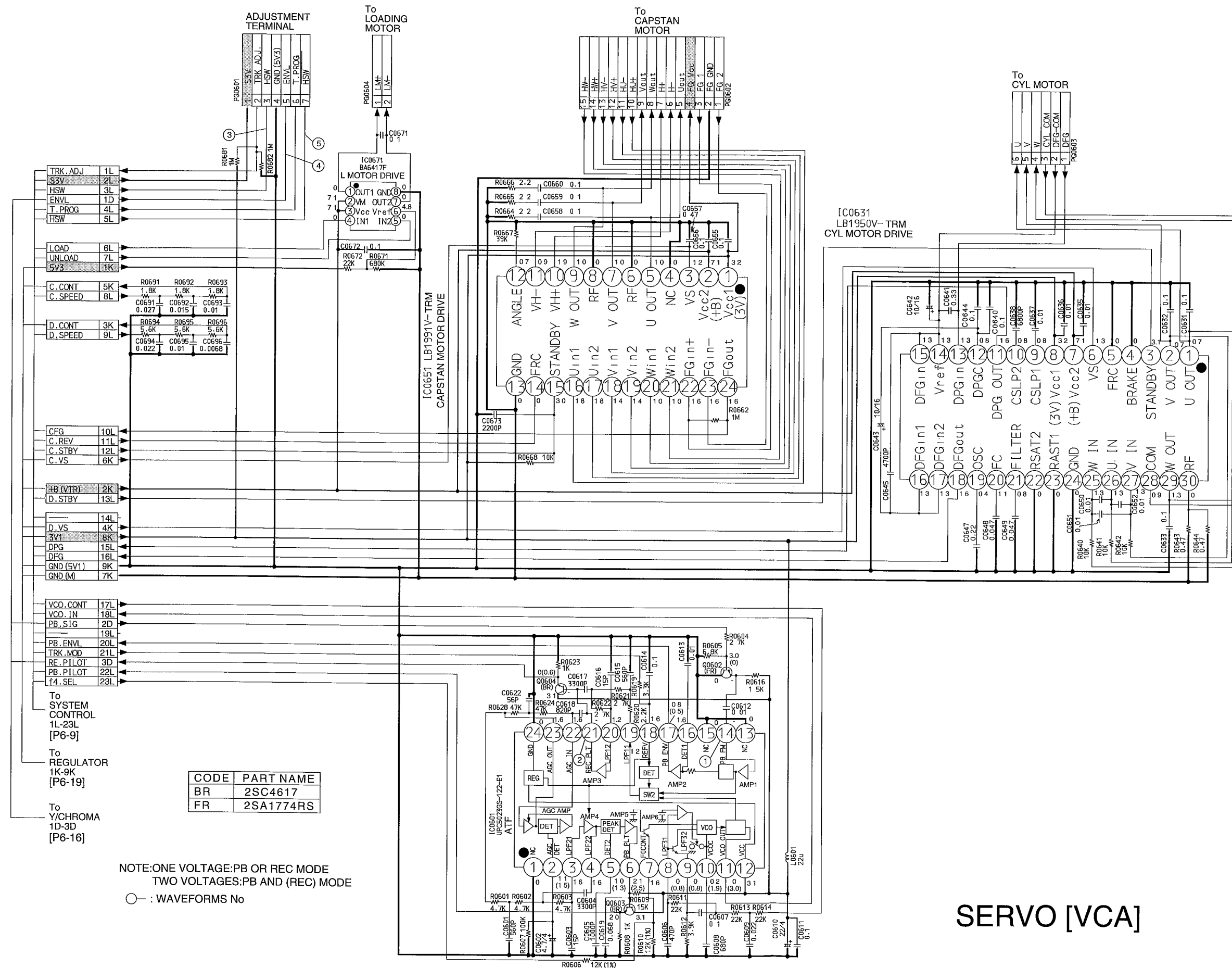
SYSTEM CONTROL
WAVEFORMS



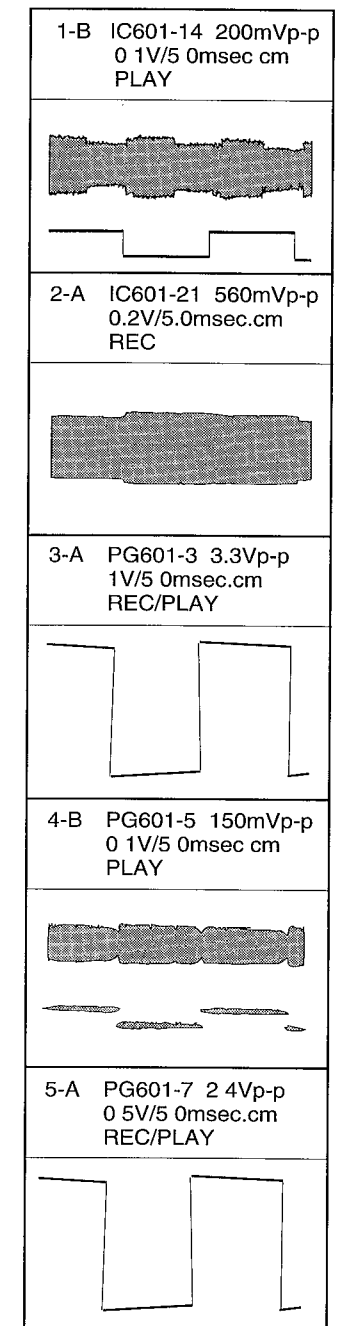
SYSTEM CONTROL [VCA]



SERVO [VCA] SCHEMATIC DIAGRAM

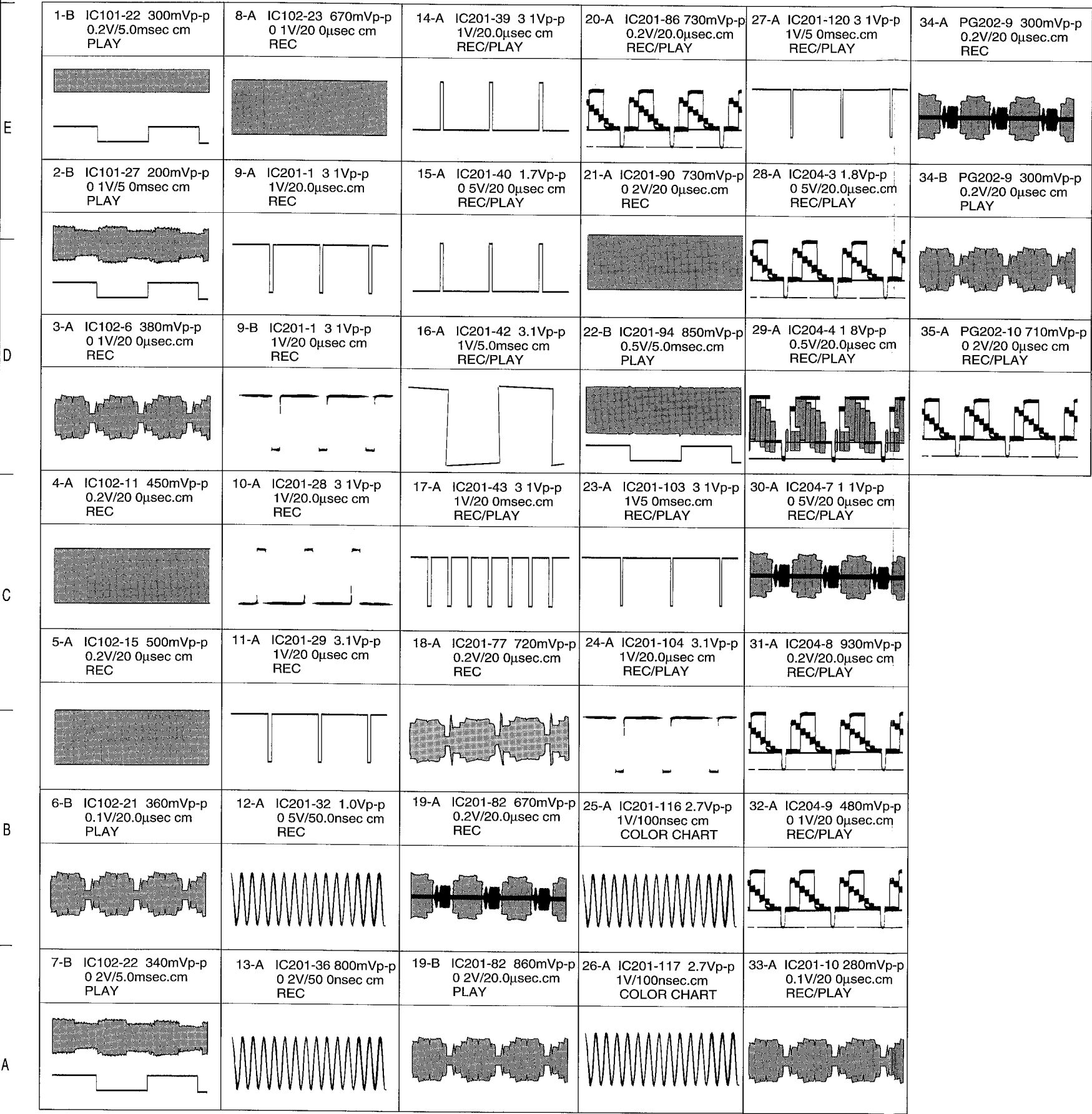


SERVO WAVEFORMS



SERVO [VCA]

VIDEO WAVEFOMS



1

2

3

4

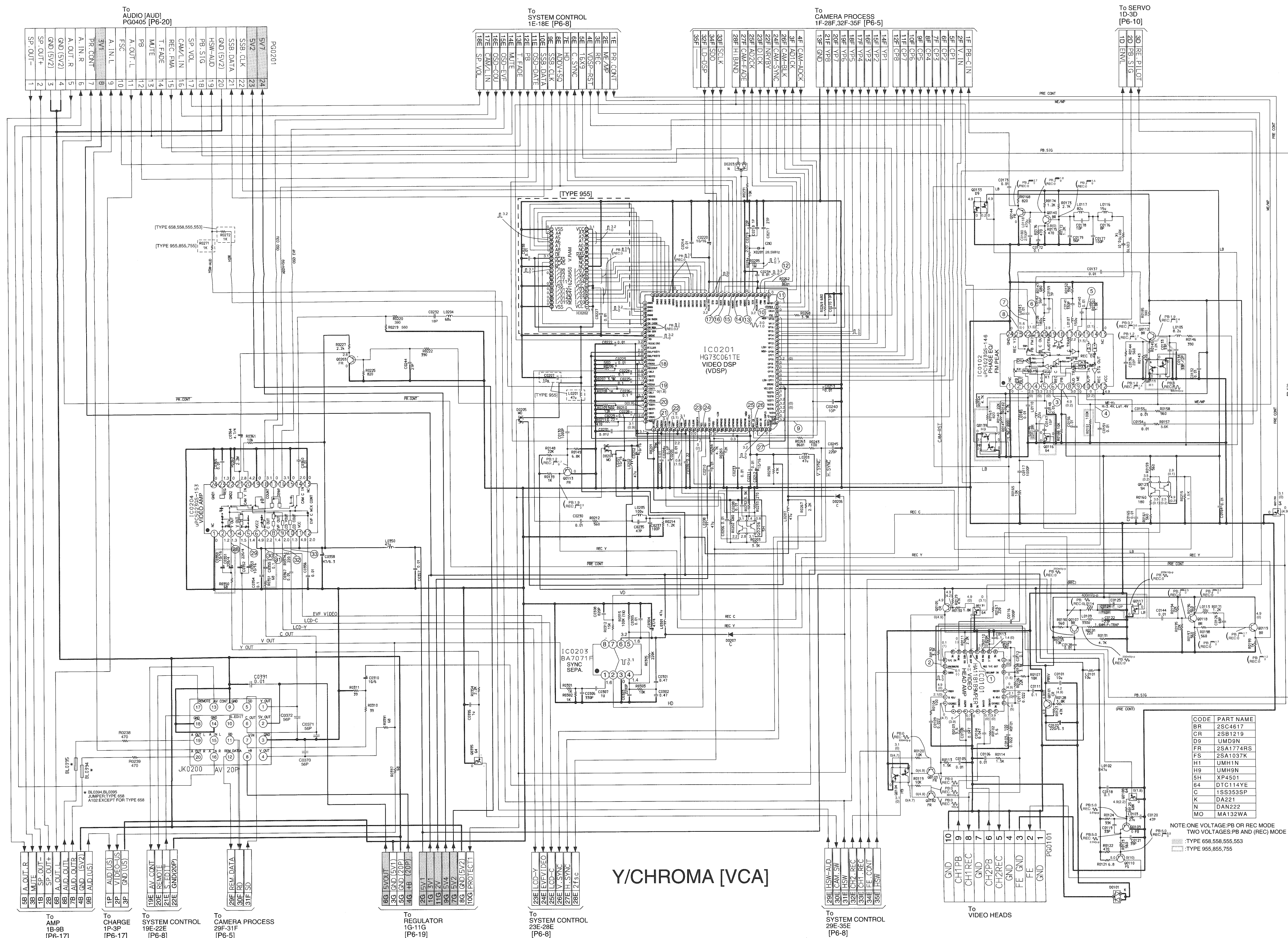
5

6

7

8

Y/CHROMA [VCA] SCHEMATIC DIAGRAM



Y/CHROMA [VCA]

CODE	PART NAME
BR	25C4617
CR	25B1219
D9	UMD9N
FR	25A1774RS
FS	25A1037K
H1	UMH1N
H9	UMH9N
5H	XP4501
64	DTC114YE
K	15S353SP
DA	DA221
N	DAN222
MO	MA132WA

NOTE: ONE VOLTAGE: PB OR REC MODE
TWO VOLTAGES: PB AND (REC) MODE
TYPE 658, 558, 555, 553
TYPE 955, 855, 755

1B SP_OUT-
2B SP_OUT+
3B MUTE
4B GND (5V2)

R0497
1K

C9450
10/6

PG0402
2 SP_OUT (+)
1 SP_OUT (-)
SPEAKER

*R0471,0472,0475,0476
1K(TYPE 955,855,755)
JUMPER(TYPE 658,558,555,553)

[TYPE 955,855,755]

5B A_OUT_R
6B A_OUT_L
7B AUD_OUTR
8B AUD_OUTL
9B AUD_US

To
Y/CHROMA
1B-9B
[P6-14]

*R0472
*R0471
*R0475
*R0476

Q0401R
DTC114YE
(64)

Q0402
DTC114YE
(64)

Q0401L
DTC114YE
(64)

[TYPE 955,855,755]

NOTE:VOLTAGE:PB OR REC MODE

The schematic diagram illustrates the internal circuitry of the rear unit CN001 (P6-26). It features a central power regulation section with a 2SK2035 transistor (Q0004) and a 2SK2035 diode (D0001). The circuit includes several resistors (R0001, R0002, R0003, R0004, R0005, R0006, R0007, R0008, R0009, R0010, R0012, R0013, R0014, R0017, R0018, R0020, R0024, R0025) and capacitors (C0001, C0003, C0004, C0005, C0006, C0007, C0008, C0009, C0010, C0011, C0012, C0013, C0014, C0015, C0016, C0017, C0018, C0019, C0020, C0021, C0022, C0023, C0024, C0025, C0026, C0027, C0028, C0029, C0030, C0031, C0032, C0033, C0034, C0035, C0036, C0037, C0038, C0039, C0040, C0041, C0042, C0043, C0044, C0045, C0046, C0047, C0048, C0049, C0050, C0051, C0052, C0053, C0054, C0055, C0056, C0057, C0058, C0059, C0060, C0061, C0062, C0063, C0064, C0065, C0066, C0067, C0068, C0069, C0070, C0071, C0072, C0073, C0074, C0075, C0076, C0077, C0078, C0079, C0080, C0081, C0082, C0083, C0084, C0085, C0086, C0087, C0088, C0089, C0090, C0091, C0092, C0093, C0094, C0095, C0096, C0097, C0098, C0099, C0100, C0101, C0102, C0103, C0104, C0105, C0106, C0107, C0108, C0109, C0110, C0111, C0112, C0113, C0114, C0115, C0116, C0117, C0118, C0119, C0120, C0121, C0122, C0123, C0124, C0125, C0126, C0127, C0128, C0129, C0130, C0131, C0132, C0133, C0134, C0135, C0136, C0137, C0138, C0139, C0140, C0141, C0142, C0143, C0144, C0145, C0146, C0147, C0148, C0149, C0150, C0151, C0152, C0153, C0154, C0155, C0156, C0157, C0158, C0159, C0160, C0161, C0162, C0163, C0164, C0165, C0166, C0167, C0168, C0169, C0170, C0171, C0172, C0173, C0174, C0175, C0176, C0177, C0178, C0179, C0180, C0181, C0182, C0183, C0184, C0185, C0186, C0187, C0188, C0189, C0190, C0191, C0192, C0193, C0194, C0195, C0196, C0197, C0198, C0199, C0200, C0201, C0202, C0203, C0204, C0205, C0206, C0207, C0208, C0209, C0210, C0211, C0212, C0213, C0214, C0215, C0216, C0217, C0218, C0219, C0220, C0221, C0222, C0223, C0224, C0225, C0226, C0227, C0228, C0229, C0230, C0231, C0232, C0233, C0234, C0235, C0236, C0237, C0238, C0239, C0240, C0241, C0242, C0243, C0244, C0245, C0246, C0247, C0248, C0249, C0250, C0251, C0252, C0253, C0254, C0255, C0256, C0257, C0258, C0259, C0260, C0261, C0262, C0263, C0264, C0265, C0266, C0267, C0268, C0269, C0270, C0271, C0272, C0273, C0274, C0275, C0276, C0277, C0278, C0279, C0280, C0281, C0282, C0283, C0284, C0285, C0286, C0287, C0288, C0289, C0290, C0291, C0292, C0293, C0294, C0295, C0296, C0297, C0298, C0299, C0300, C0301, C0302, C0303, C0304, C0305, C0306, C0307, C0308, C0309, C0310, C0311, C0312, C0313, C0314, C0315, C0316, C0317, C0318, C0319, C0320, C0321, C0322, C0323, C0324, C0325, C0326, C0327, C0328, C0329, C0330, C0331, C0332, C0333, C0334, C0335, C0336, C0337, C0338, C0339, C0340, C0341, C0342, C0343, C0344, C0345, C0346, C0347, C0348, C0349, C0350, C0351, C0352, C0353, C0354, C0355, C0356, C0357, C0358, C0359, C0360, C0361, C0362, C0363, C0364, C0365, C0366, C0367, C0368, C0369, C0370, C0371, C0372, C0373, C0374, C0375, C0376, C0377, C0378, C0379, C0380, C0381, C0382, C0383, C0384, C0385, C0386, C0387, C0388, C0389, C0390, C0391, C0392, C0393, C0394, C0395, C0396, C0397, C0398, C0399, C0400, C0401, C0402, C0403, C0404, C0405, C0406, C0407, C0408, C0409, C0410, C0411, C0412, C0413, C0414, C0415, C0416, C0417, C0418, C0419, C0420, C0421, C0422, C0423, C0424, C0425, C0426, C0427, C0428, C0429, C0430, C0431, C0432, C0433, C0434, C0435, C0436, C0437, C0438, C0439, C0440, C0441, C0442, C0443, C0444, C0445, C0446, C0447, C0448, C0449, C0450, C0451, C0452, C0453, C0454, C0455, C0456, C0457, C0458, C0459, C0460, C0461, C0462, C0463, C0464, C0465, C0466, C0467, C0468, C0469, C0470, C0471, C0472, C0473, C0474, C0475, C0476, C0477, C0478, C0479, C0480, C0481, C0482, C0483, C0484, C0485, C0486, C0487, C0488, C0489, C0490, C0491, C0492, C0493, C0494, C0495, C0496, C0497, C0498, C0499, C0500, C0501, C0502, C0503, C0504, C0505, C0506, C0507, C0508, C0509, C0510, C0511, C0512, C0513, C0514, C0515, C0516, C0517, C0518, C0519, C0520, C0521, C0522, C0523, C0524, C0525, C0526, C0527, C0528, C0529, C0530, C0531, C0532, C0533, C0534, C0535, C0536, C0537, C0538, C0539, C0540, C0541, C0542, C0543, C0544, C0545, C0546, C0547, C0548, C0549, C0550, C0551, C0552, C0553, C0554, C0555, C0556, C0557, C0558, C0559, C0560, C0561, C0562, C0563, C0564, C0565, C0566, C0567, C0568, C0569, C0570, C0571, C0572, C0573, C0574, C0575, C0576, C0577, C0578, C0579, C0580, C0581, C0582, C0583, C0584, C0585, C0586, C0587, C0588, C0589, C0590, C0591, C0592, C0593, C0594, C0595, C0596, C0597, C0598, C0599, C0600, C0601, C0602, C0603, C0604, C0605, C0606, C0607, C0608, C0609, C0610, C0611, C0612, C0613, C0614, C0615, C0616, C0617, C0618, C0619, C0620, C0621, C0622, C0623, C0624, C0625, C0626, C0627, C0628, C0629, C0630, C0631, C0632, C0633, C0634, C0635, C0636, C0637, C0638, C0639, C0640, C0641, C0642, C0643, C0644, C0645, C0646, C064

A horizontal number line with four segments labeled 1, 2, 3, and 4. The segments are separated by vertical tick marks.

The diagram shows the connection between the PG0701 system control unit and two peripheral devices: the SW0701 VCR and the SW0702 CAMERA.

PG0701 Pinout:

GND	1
VCR, SW	2
CAM, SW	3

SW0701 VCR: A rectangular unit with a circular connector on the left. It has four pins labeled 1, 2, 3, and 4. Pin 1 is connected to PG0701 pin 1 (GND). Pin 2 is connected to PG0701 pin 2 (VCR, SW). Pin 3 is connected to PG0701 pin 3 (CAM, SW). Pin 4 is connected to PG0701 pin 4 (To SYSTEM CONTROL [VCA] PG0907 [P6-8]).

SW0702 CAMERA: A rectangular unit with a circular connector on the left. It has four pins labeled 1, 2, 3, and 4. Pin 1 is connected to PG0701 pin 1 (GND). Pin 2 is connected to PG0701 pin 2 (VCR, SW). Pin 3 is connected to PG0701 pin 3 (CAM, SW). Pin 4 is connected to PG0701 pin 4 (To SYSTEM CONTROL [VCA] PG0907 [P6-8]).

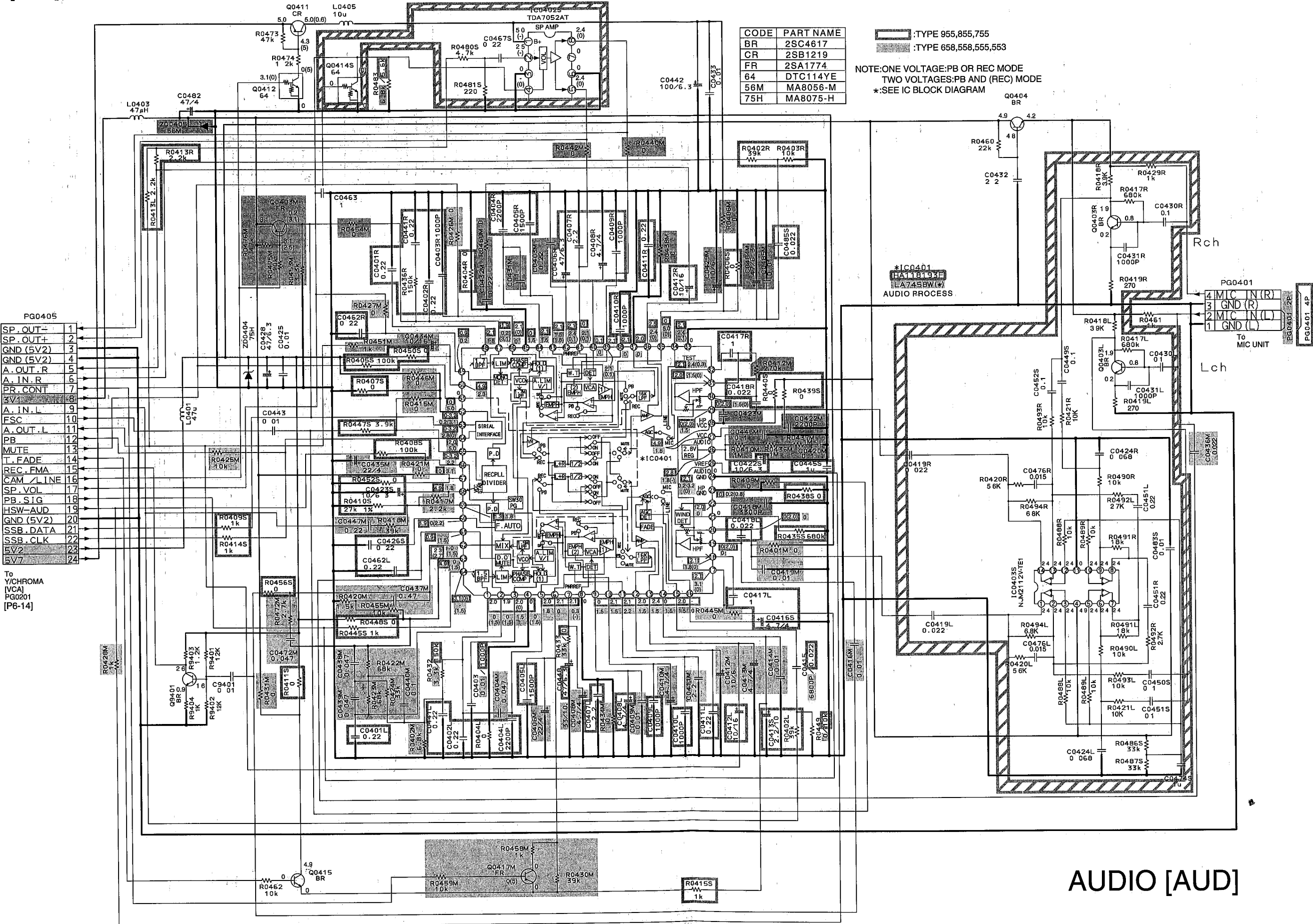
PG0701: A rectangular unit with a circular connector on the left. It has four pins labeled 1, 2, 3, and 4. Pin 1 is connected to PG0701 pin 1 (GND). Pin 2 is connected to PG0701 pin 2 (VCR, SW). Pin 3 is connected to PG0701 pin 3 (CAM, SW). Pin 4 is connected to PG0701 pin 4 (To SYSTEM CONTROL [VCA] PG0907 [P6-8]).

NOTE: VOLTAGE: PB OR REC MODE

CODE	PART NAME
AE	2SB1424R
BR	2SC4617
L01	MPL-1
64	DTC114YE
MO	MA132WA

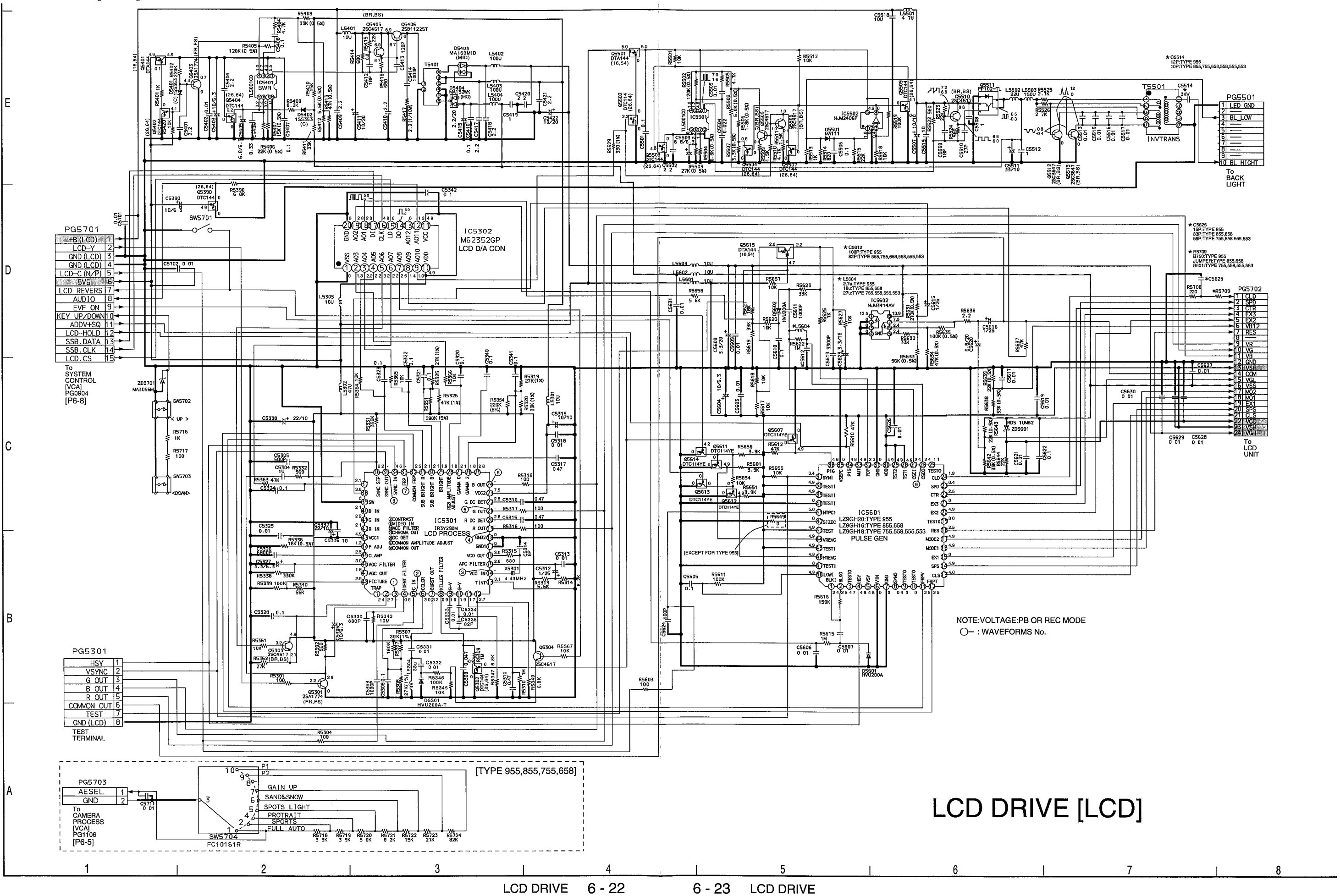
A horizontal number line with tick marks labeled 5, 6, 7, 8, 9, 10, 11, and 12.

AUDIO [AUD] SCHEMATIC DIAGRAM

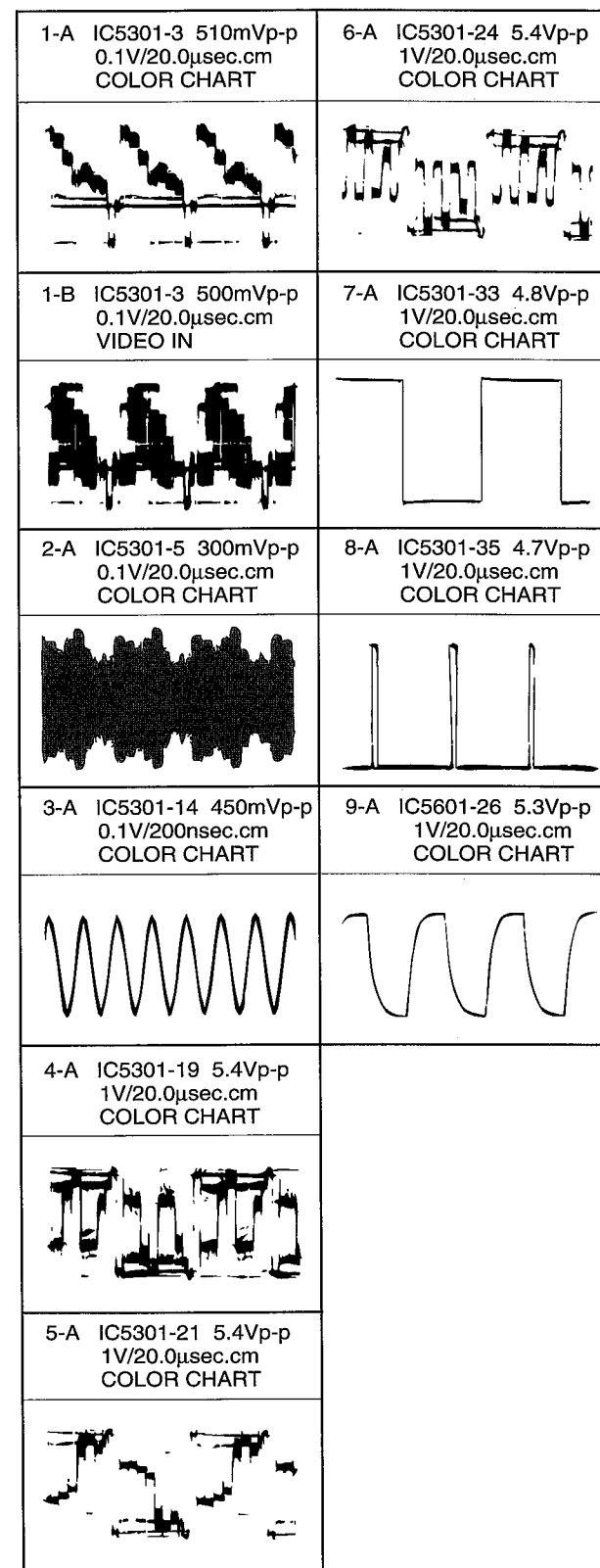


AUDIO [AUD]

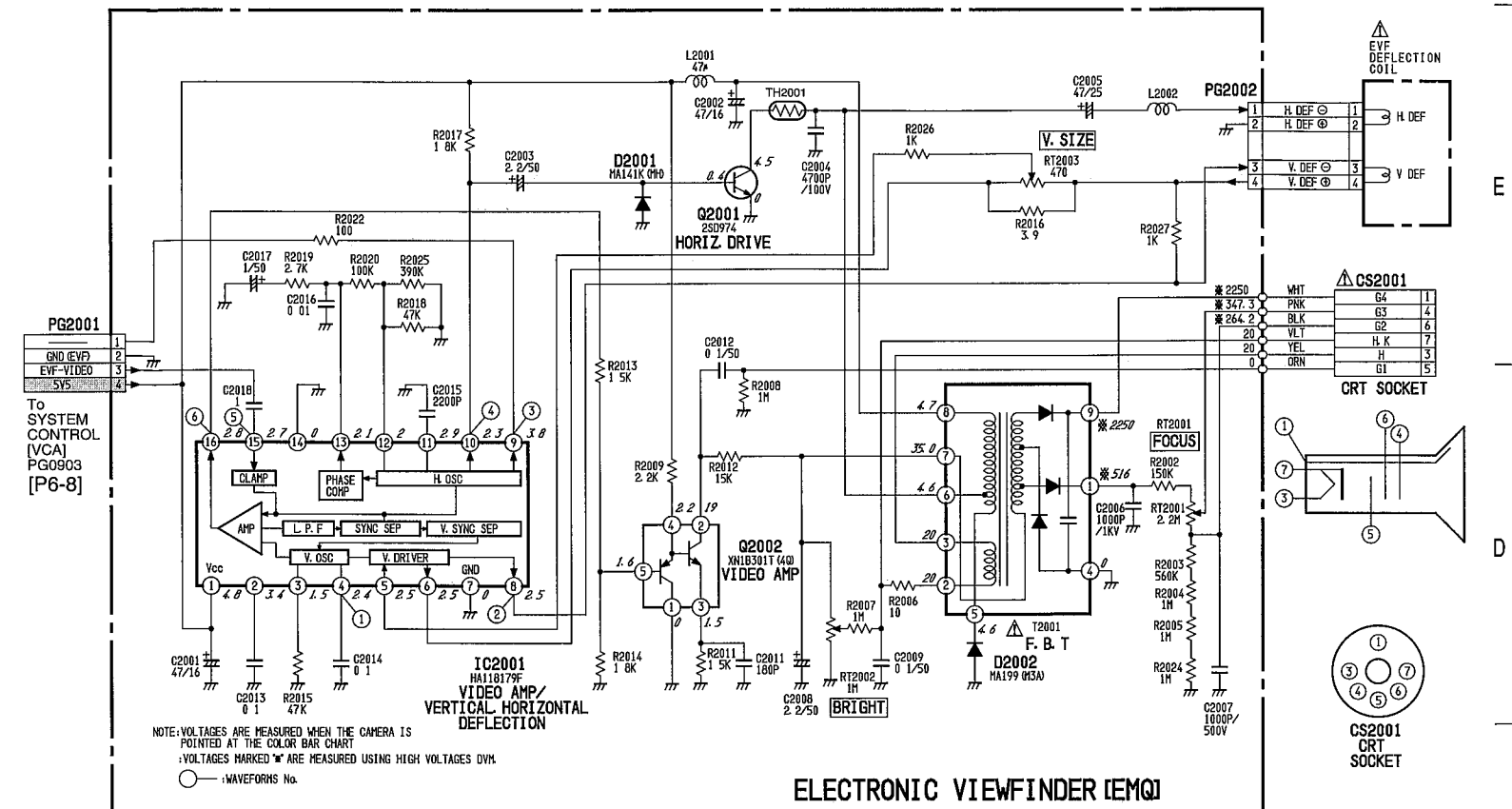
LCD DRIVE [LCD] SCHEMATIC DIAGRAM



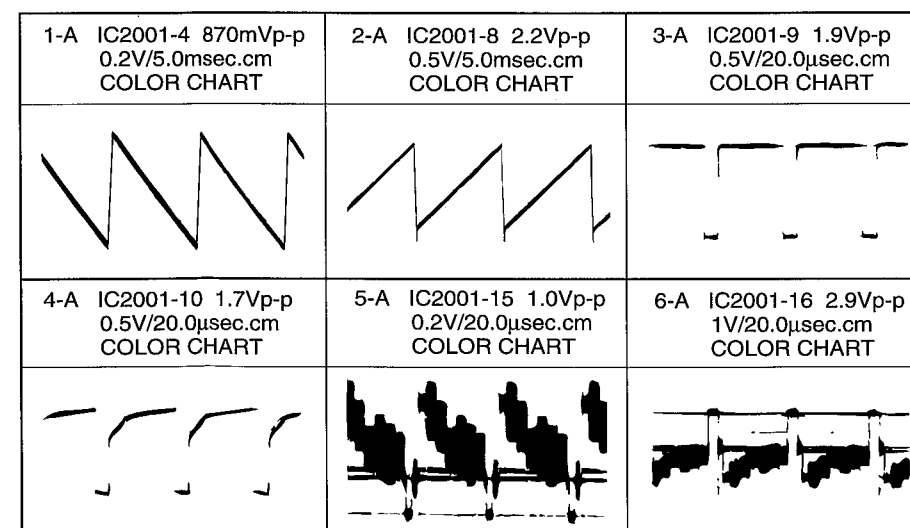
LCD WAVEFORMS



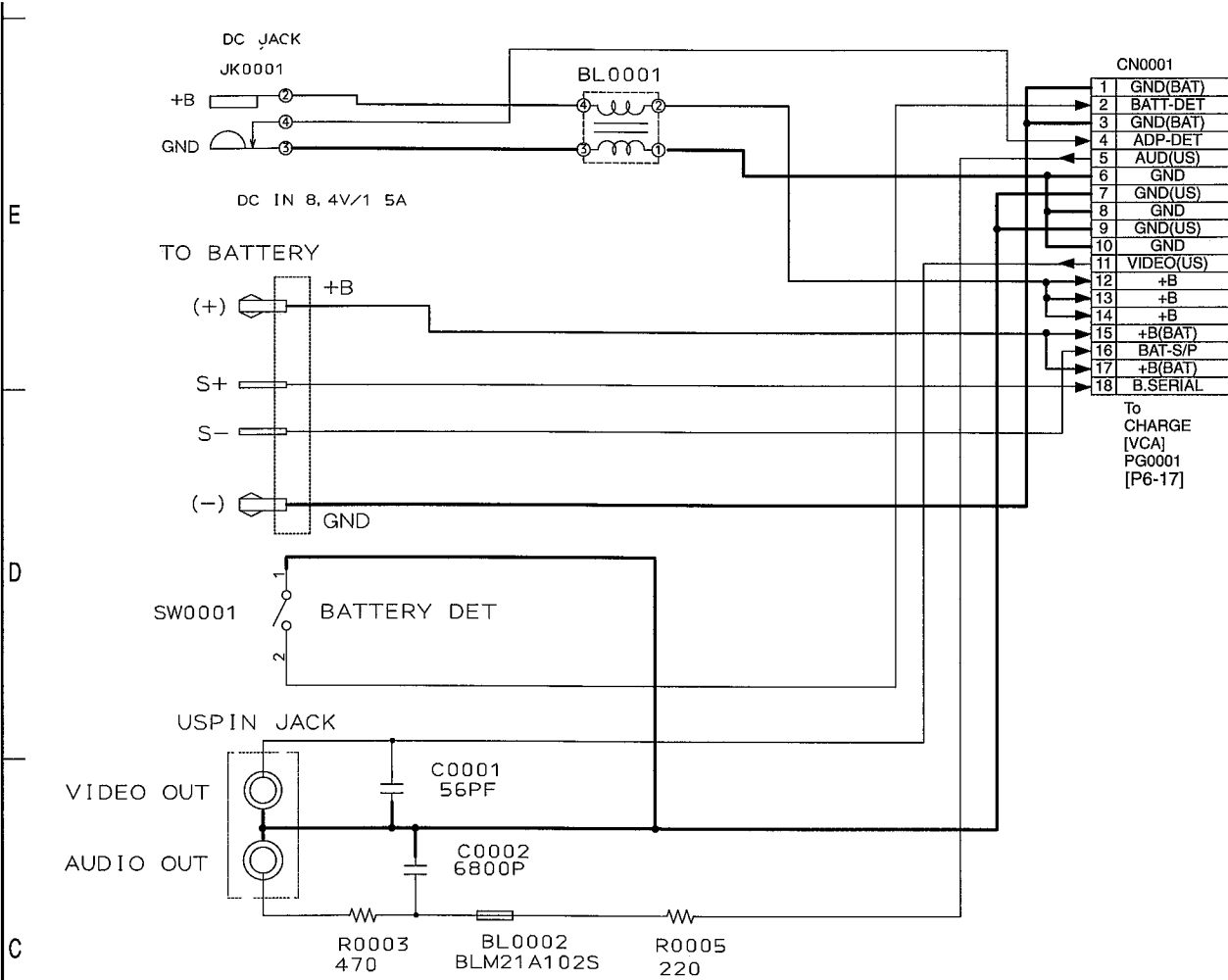
ELECTRONIC VIEWFINDER [EMQ] SCHEMATIC DIAGRAM



ELECTRONIC VIEWFINDER WAVEFORMS

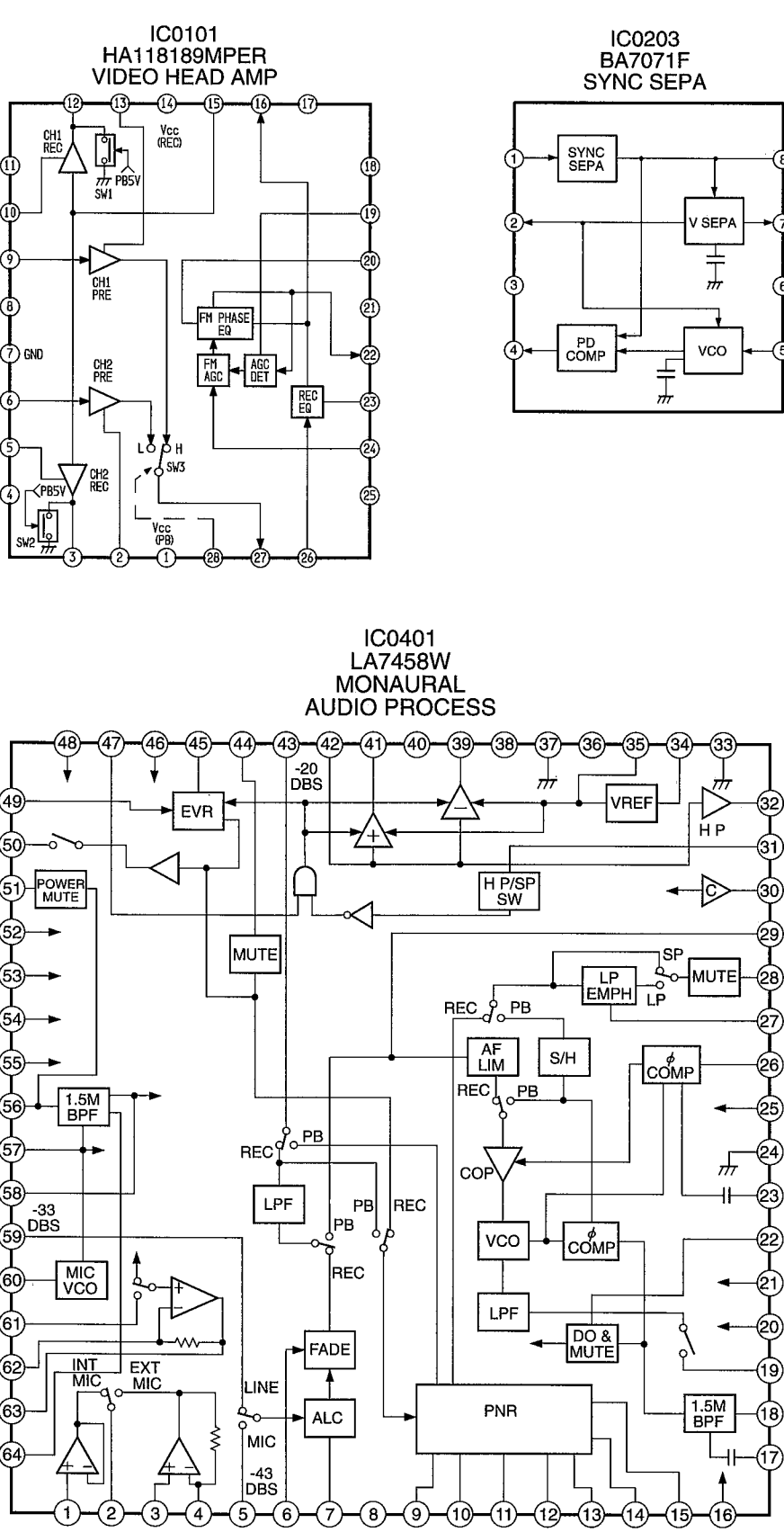


REAR UNIT SCHEMATIC DIAGRAM



REAR UNIT

IC BLOCK DIAGRAMS





VCA [MAIN] —SIDE A—
[PATTERN No. JA1652-6]

PSW [POWER SW]
[PATTERN No. JA1652-6]

PSW [POWER SW]
[PATTERN No. JA1652-6]

DIFFERENCE TABLE

VCA [MAIN] -SIDE A-

NOTE: This table lists the different components marked with asterisks (*) in the circuit board diagrams.

SYMBOL No.	TYPE 955	TYPE 855	TYPE 755	TYPE 658	TYPE 558	TYPE 555	TYPE 553
BL0394	○	○	○	JUMPER	○	○	○
BL0395	○	○	○	JUMPER	○	○	○
C0207	○	×	×	×	×	×	×
C0227	○	×	×	×	×	×	×
C0238	○	×	×	×	×	×	×
C0350	○	○	○	×	×	×	×
C0351	○	○	○	×	×	×	×
C1147	○	○	○	○	JUMPER	JUMPER	JUMPER
D1106	○	○	×	○	×	×	×
IC0202	○	×	×	×	×	×	×
L0201	○	×	×	×	×	×	×
PG0552	○	○	×	○	×	×	×
Q0401L	○	○	○	×	×	×	×
Q0401R	○	○	○	×	×	×	×
R0350	○	○	○	×	×	×	×
R0471	○	○	○	JUMPER	JUMPER	JUMPER	JUMPER
R0472	○	○	○	JUMPER	JUMPER	JUMPER	JUMPER
R0475	○	○	○	JUMPER	JUMPER	JUMPER	JUMPER
R0476	○	○	○	JUMPER	JUMPER	JUMPER	JUMPER
R1164	○	○	○	○	×	×	×
R1167	○	○	×	○	×	×	×
R1170	○	○	○	○	×	○	×
R1173	○	○	○	○	×	×	×
R1180	○	○	○	○	×	×	×
SW1102	○	○	×	○	×	×	×

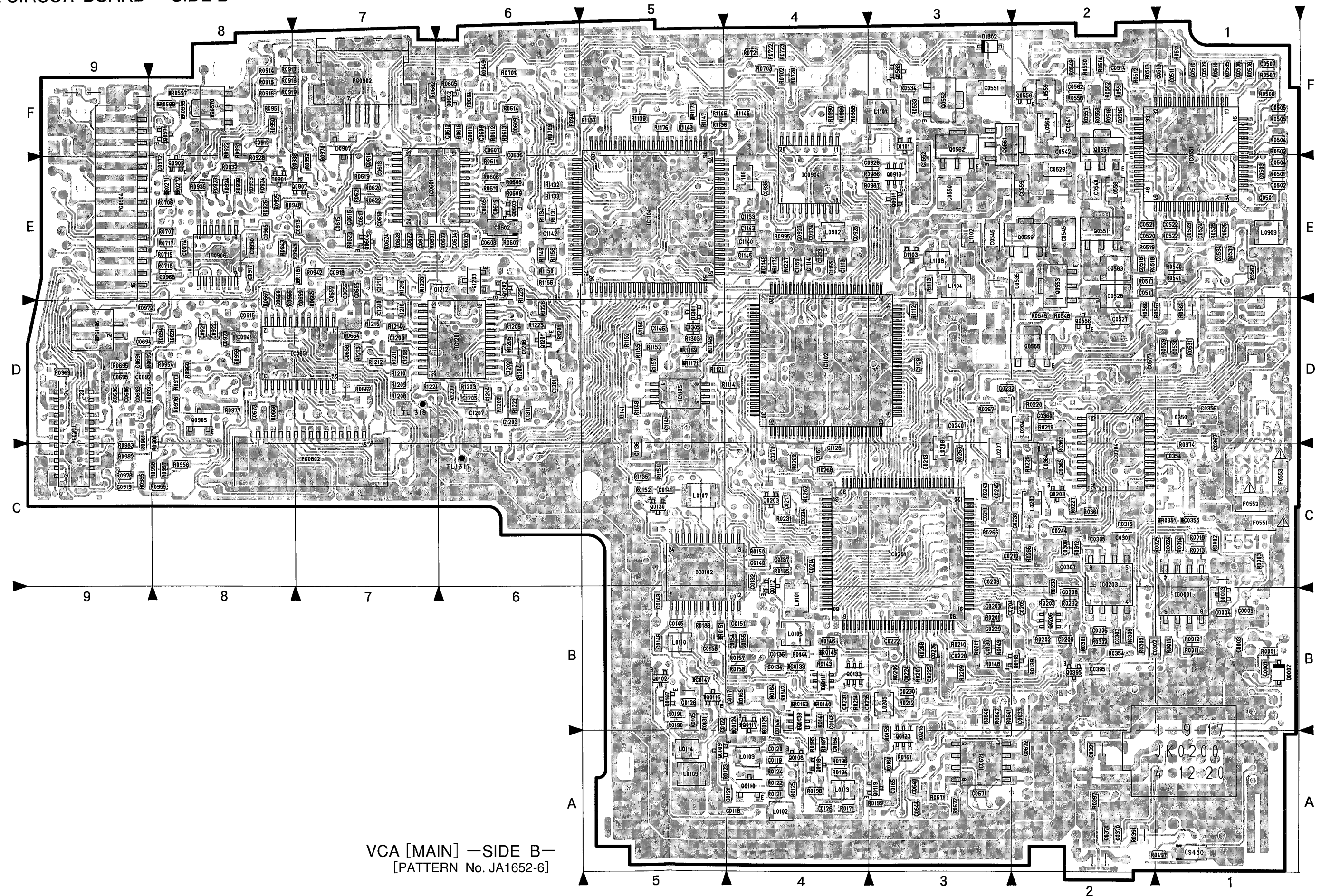
DIFFERENCE TABLE

VCA [MAIN] -SIDE B-

NOTE: This table lists the different components marked with asterisks (*) in the circuit board diagrams.

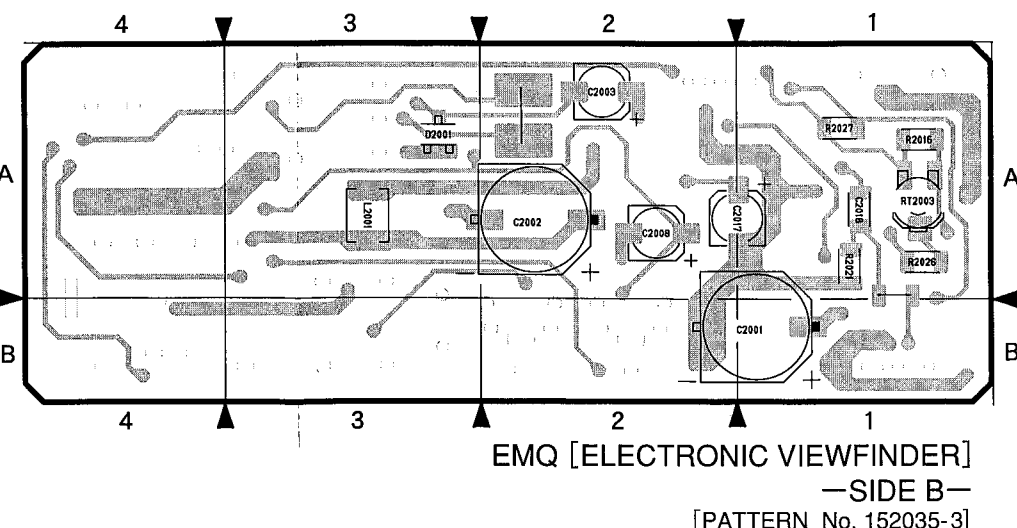
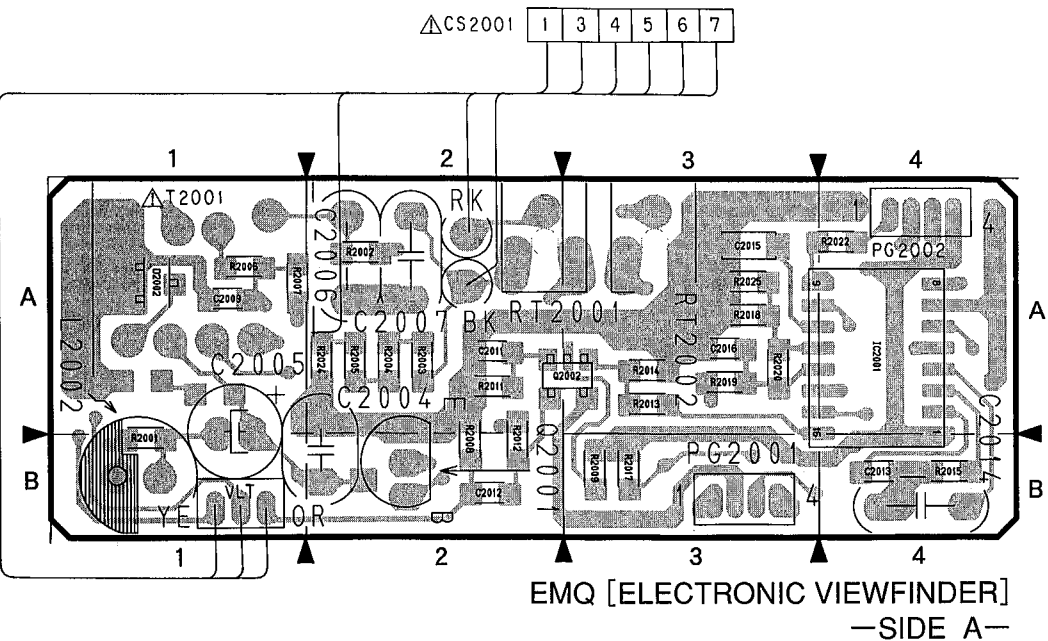
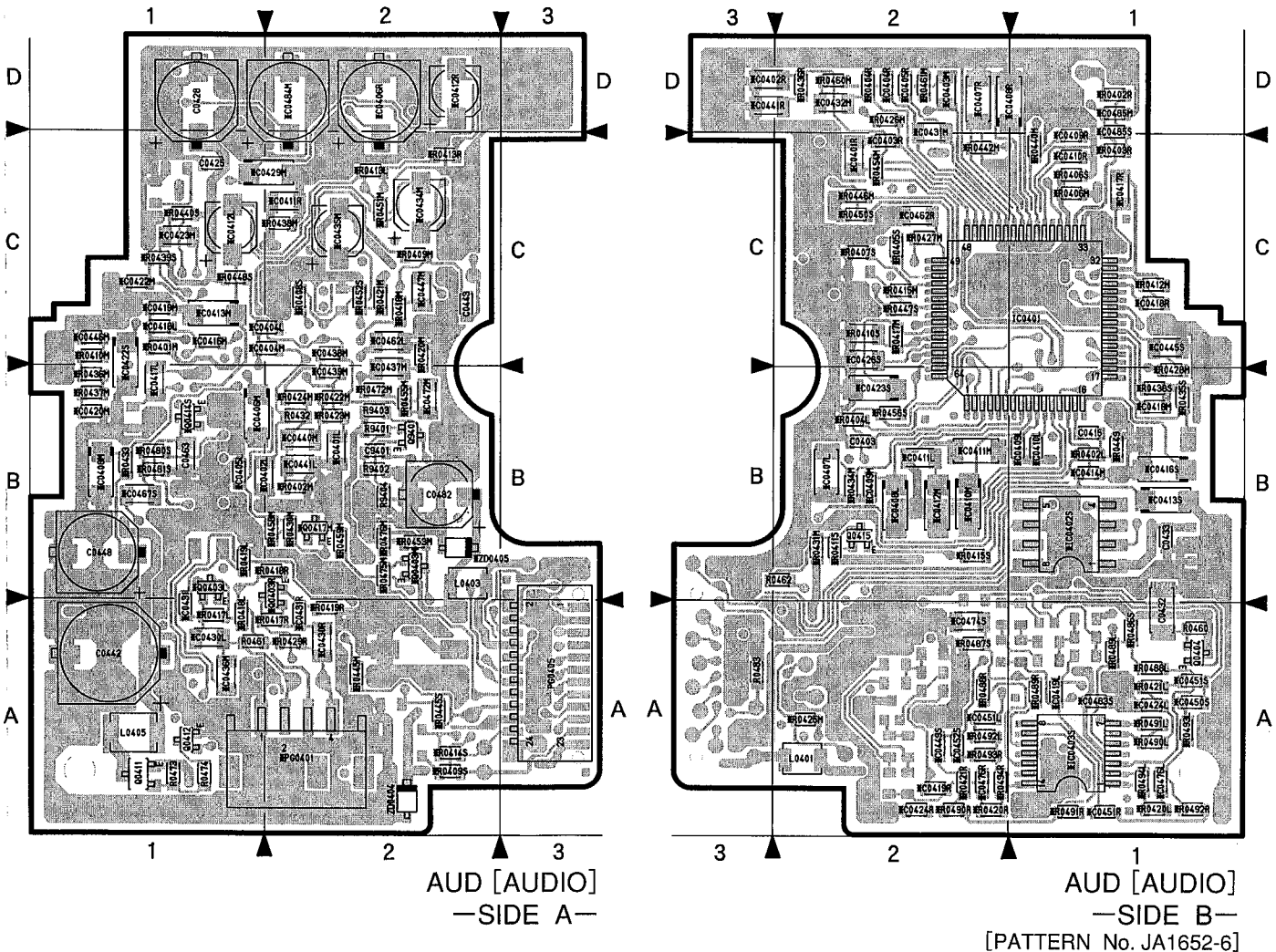
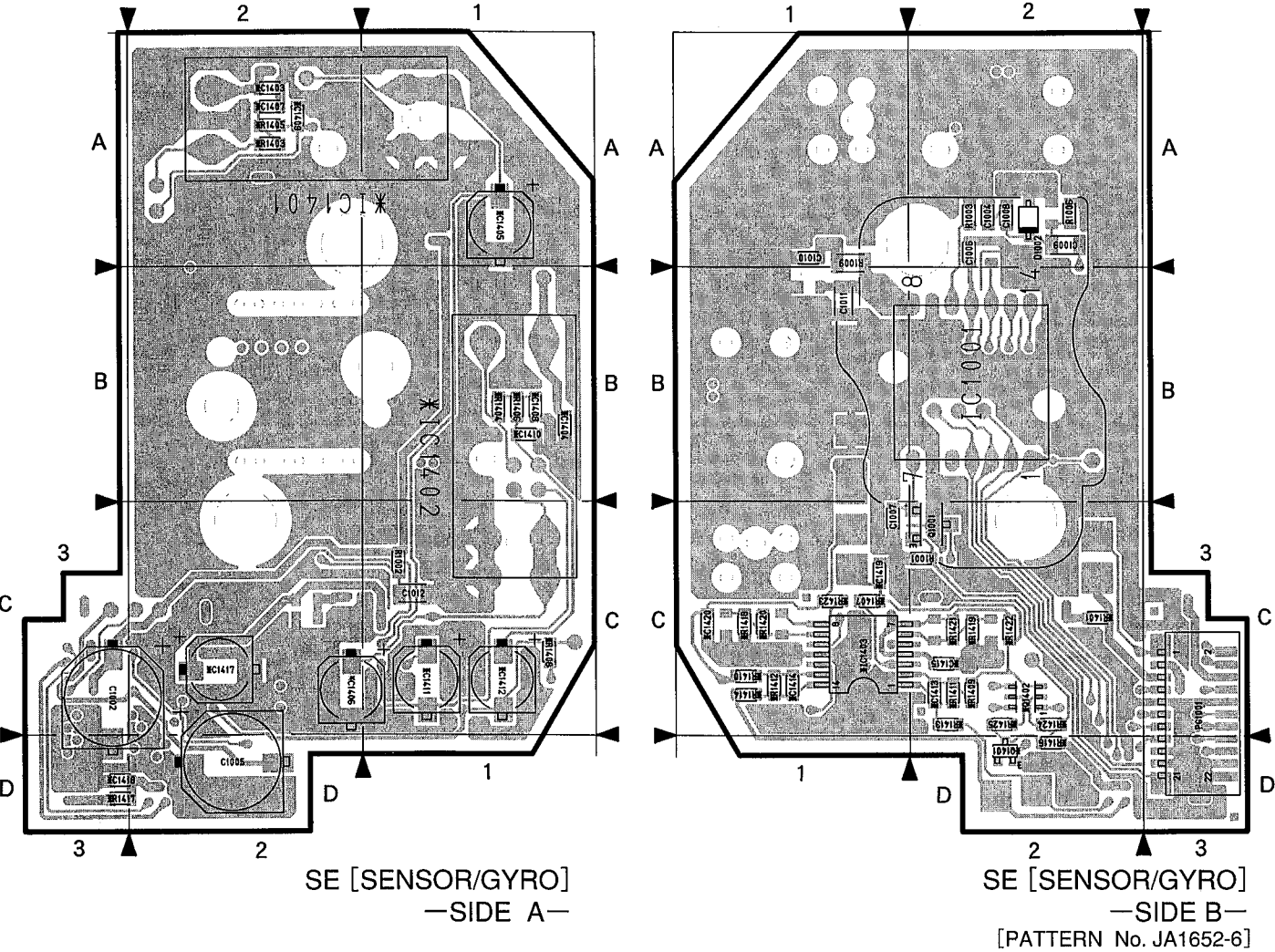
SYMBOL No.	TYPE 955	TYPE 855	TYPE 755	TYPE 658	TYPE 558	TYPE 555	TYPE 553
C0124	×	×	×	○	○	○	○
C0125	○	○	○	×	×	×	×
C0133	○	○	○	×	×	×	×
C0147	○	○	○	×	×	×	×
C0355	○	○	○	×	×	×	×
C1148	○	○	○	○	×	○	×
C1149	○	○	○	○	×	○	×
PG1106	○	○	○	○	×	×	×
Q0111	○	○	○	×	×	×	×
Q0116	○	○	○	×	×	×	×
Q0117	○	○	○	×	×	×	×
Q0139	○	○	○	×	×	×	×
Q0570	○	○	×	○	×	×	×
Q0571	○	○	×	○	×	×	×
R0140	○	○	○	×	×	×	×
R0145	○	○	○	×	×	×	×
R0151	○	○	○	×	×	×	×
R0163	○	○	○	×	×	×	×
R0271	○	○	○	×	×	×	×
R0272	×	×	×	○	○	○	○
R0351	○	○	○	×	×	×	×
R0597	○	○	×	○	×	×	×
R0598	○	○	×	○	×	×	×
R0599	○	○	×	○	×	×	×
R1169	○	○	○	○	×	○	×
R1171	○	○	○	○	JUMPER	○	JUMPER
R1172	○	○	○	○	JUMPER	○	JUMPER
R1175	○	○	×	○	×	×	×
R1181	○	○	○	○	×	×	×

VCA CIRCUIT BOARD – SIDE B –



VCA [MAIN] —SIDE B—
[PATTERN No. JA1652-6]

SE, AUD, EMQ CIRCUIT BOARD



DIFFERENCE TABLE

NOTE: This table lists the different components marked with asterisks (*) in the circuit board diagrams.

AUD [AUDIO] -SIDE A-

SYMBOL No.	TYPE 955/855/755	TYPE658/ 558/555/553
C0401L	○	×
C0402L	○	×
C0404L	○	×
C0404M	×	○
C0405L	○	×
C0406M	×	○
C0406R	○	×
C0408M	×	○
C0411R	○	×
C0412L	○	×
C0412R	○	×
C0413M	×	○
C0416M	×	○
C0417L	○	×
C0418L	○	×
C0419M	×	○
C0420M	×	○
C0422M	×	○
C0422S	○	×
C0423M	×	○
C0429M	×	○
C0430L	○	×
C0430R	○	×
C0431L	○	×
C0431R	○	×
C0434M	×	○
C0435M	×	○
C0436M	×	○
C0437M	×	○
C0438M	×	○
C0439M	×	○
C0440M	×	○
C0441L	○	×
C0446M	×	○
C0447M	×	○
C0462L	○	×
C0467S	○	×
C0472M	×	○
C0484M	×	○
PG0401	4P	2P
Q0403L	○	×
Q0403M	×	○
Q0403R	○	×
Q0414S	○	×
Q0417M	×	○
R0401M	×	JUMPER
R0402M	×	○
R0408S	○	×
R0409M	×	JUMPER
R0409S	○	×
R0410M	×	○
R0413L	○	×
R0413R	○	×
R0414S	○	×
R0417L	○	×
R0417R	○	×

SYMBOL No.	TYPE 955/855/755	TYPE658/ 558/555/553
R0418L	○	×
R0418M	×	○
R0418R	○	×
R0419L	○	×
R0419R	○	×
R0420M	×	○
R0421M	×	JUMPER
R0422M	×	○
R0423M	×	○
R0424M	×	○
R0429R	○	×
R0430M	×	○
R0433	JUMPER	○
R0436M	×	○
R0437M	×	○
R0438M	×	JUMPER
R0439S	JUMPER	×
R0440S	JUMPER	×
R0445M	×	JUMPER
R0445S	○	×
R0448S	JUMPER	×
R0451M	×	○
R0452S	JUMPER	×
R0453M	×	○
R0455M	×	○
R0458M	×	○
R0459M	×	○
R0472M	×	○
R0475M	×	○
R0476M	×	○
R0480S	○	×
R0481S	○	×
ZD0405	×	○

AUD [AUDIO] -SIDE B-

SYMBOL No.	TYPE 955/855/755	TYPE658/ 558/555/553
C0401R	○	×
C0402R	○	×
C0403M	×	○
C0403R	○	×
C0404R	○	×
C0405R	○	×
C0407L	○	×
C0407R	○	×
C0408L	○	×
C0408R	○	×
C0409L	○	×
C0409M	×	○
C0409R	○	×
C0410L	○	×
C0410M	×	○
C0410R	○	×
C0411L	○	×
C0411M	×	○
C0412M	×	○
C0413S	○	×
C0414M	×	○
C0416S	○	×
C0417R	○	×
C0418M	×	○
C0418R	○	×
C0419L	○	×
C0419R	○	×
C0423S	○	×
C0424L	○	×
C0424R	○	×
C0426S	○	×
C0431M	×	○
C0432M	×	○
C0441R	○	×
C0445S	○	×
C0449S	○	×
C0450S	○	×
C0451L	○	×
C0451R	○	×
C0451S	○	×
C0452S	○	×
C0462R	○	×
C0474S	○	×
C0476L	○	×
C0476R	○	×
C0483S	○	×
C0485M	×	○
C0485S	○	×
IC0402S	○	×
IC0403S	○	×
R0402L	○	×
R0402R	○	×
R0403R	○	×
R0404L	JUMPER	×
R0404R	JUMPER	×
R0405S	○	×

SYMBOL No.	TYPE 955/855/755	TYPE658/ 558/555/553
R0406M	×	JUMPER
R0406S	JUMPER	×
R0407S	JUMPER	×
R0410S	○	×
R0411S	JUMPER	×
R0412M	×	○
R0415M	×	JUMPER
R0415S	○	×
R0417M	×	○
R0420L	○	×
R0420R	○	×
R0421L	○	×
R0421R	○	×
R0425M	×	○
R0426M	×	JUMPER
R0427M	×	JUMPER
R0428M	×	○
R0431M	×	JUMPER
R0434M	×	JUMPER
R0435S	○	×
R0436R	○	×
R0438S	JUMPER	×
R0440M	×	JUMPER
R0442M	×	JUMPER
R0446M	×	JUMPER
R0447S	○	×
R0449	○	JUMPER
R0450S	JUMPER	×
R0454M	×	JUMPER
R0456S	JUMPER	×
R0460M	×	JUMPER
R0461M	×	○
R0486S	○	×
R0487S	○	×
R0488L	○	×
R0488R	○	×
R0489L	○	×
R0489R	○	×
R0490L	○	×
R0490R	○	×
R0491L	○	×
R0491R	○	×
R0492L	○	×
R0492R	○	×
R0493L	○	×
R0493R	○	×
R0494L	○	×
R0494R	○	×

LCD [LCD DRIVE] -SIDE A-

SYMBOL No.	TYPE 955	TYPE 855/658	TYPE 755	TYPE 558/555/553
C5711	○	○	○	×
PG5703	○	○	○	×
SW5704	○	○	○	×

LCD [LCD DRIVE] -SIDE B-

SYMBOL No.	TYPE 955	TYPE 855/658	TYPE 755	TYPE 558/555/553
R5649	×	JUMPER	JUMPER	JUMPER
R5709	○	JUMPER	○	○
R5718	○	○	○	×
R5719	○	○	○	×
R5720	○	○	○	×
R5721	○	○	○	×
R5722	○	○	○	×
R5723	○	○	○	×
R5724	○	○	○	×

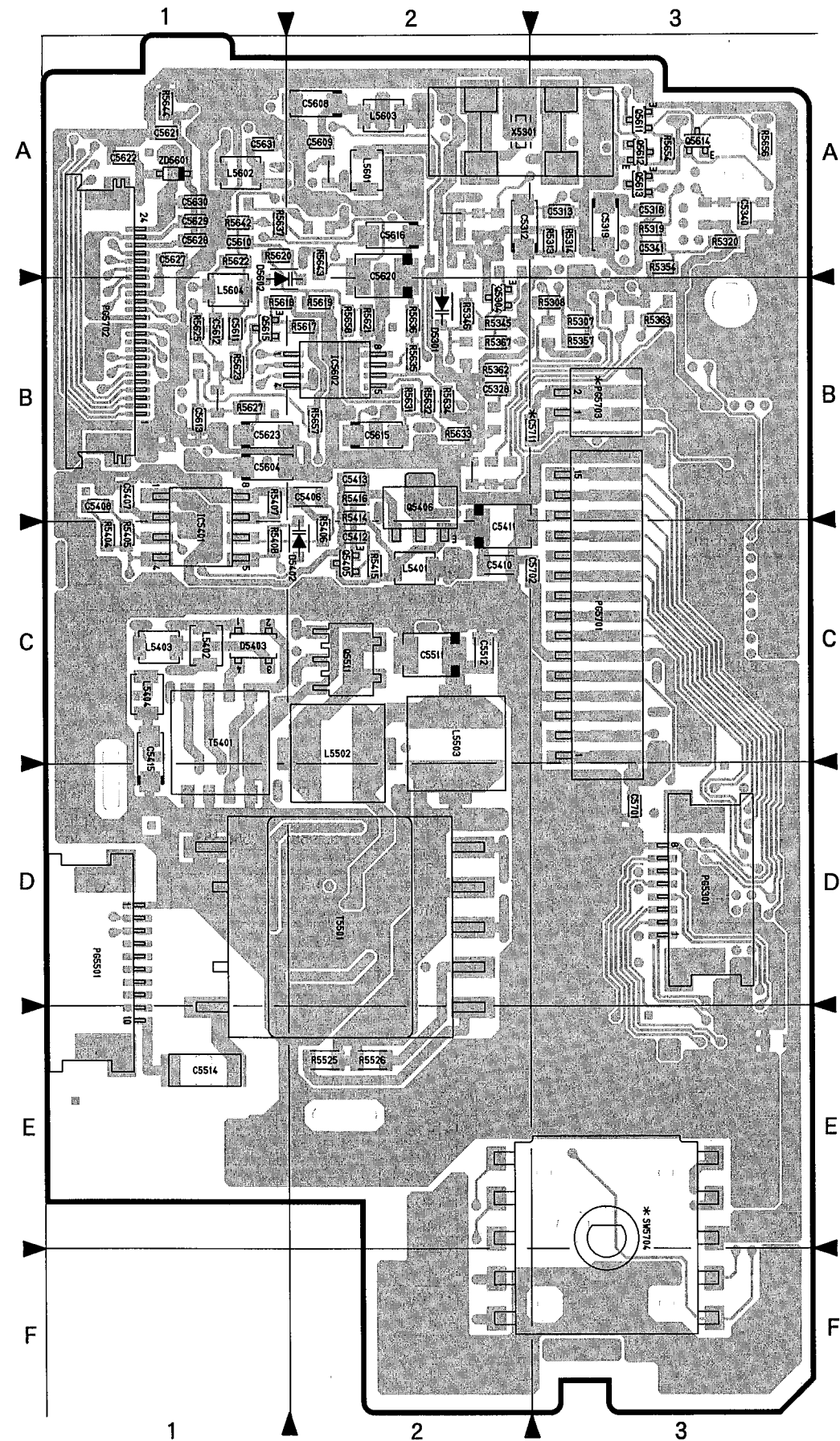
SE [SENSOR/GYRO] -SIDE A-

SYMBOL No.	TYPE955/855/ 755/658/555	TYPE 558/553
C1403	○	×
C1404	○	×
C1405	○	×
C1406	○	×
C1407	○	×
C1408	○	×
C1409	○	×
C1410	○	×
C1411	○	×
C1412	○	×
C1417	○	×
C1418	○	×
IC1401	○	×
IC1402	○	×
R1403	○	×
R1404	○	×
R1405	○	×
R1406	○	×
R1408	○	×
R1417	JUMPER	×

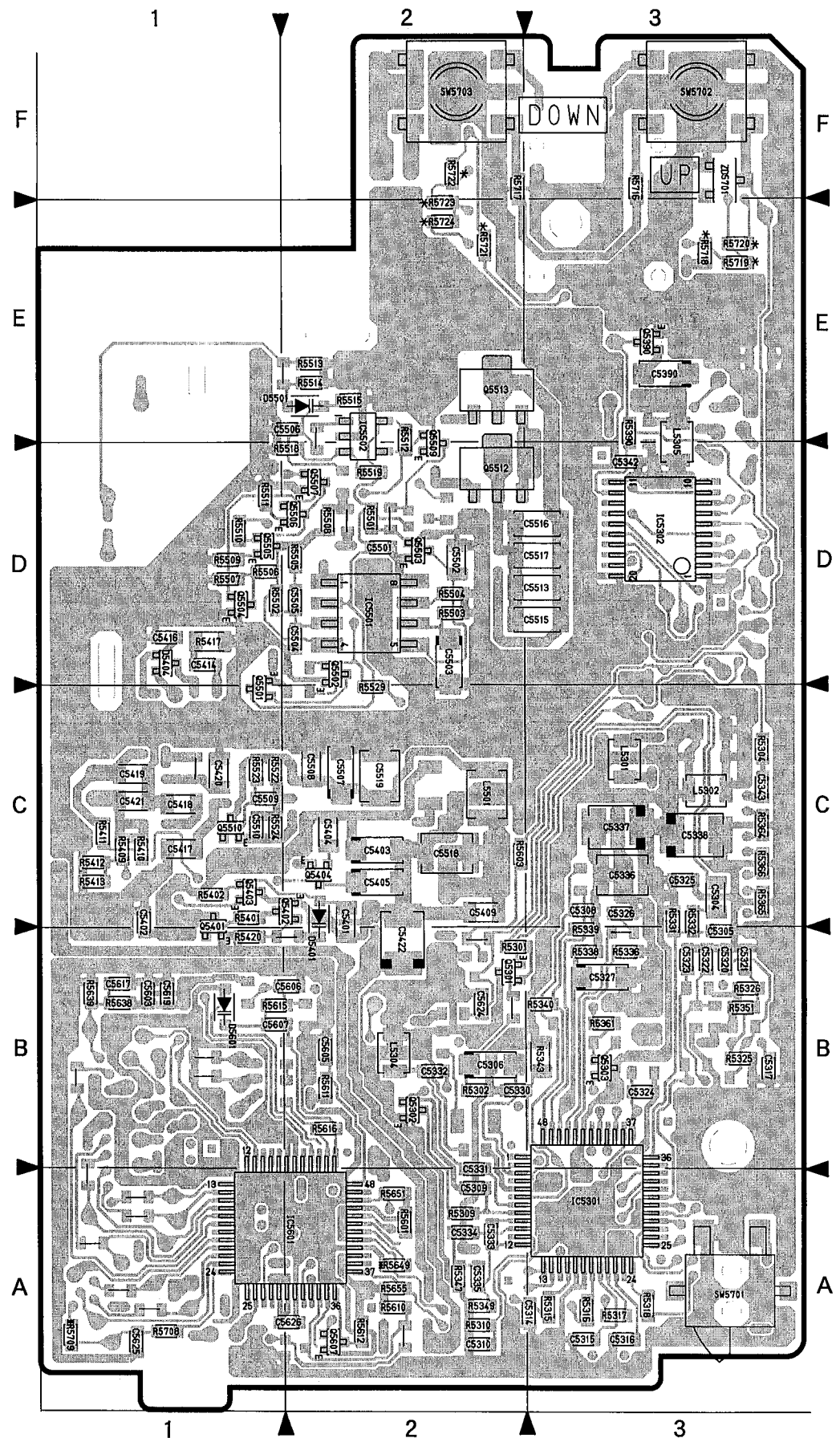
SE [SENSOR/GYRO] -SIDE B-

SYMBOL No.	TYPE955/855/ 755/658/555	TYPE 558/553
C1413	○	×
C1414	○	×
C1415	○	×
C1419	○	×
C1420	○	×
IC1403	○	×
Q1401	○	×
Q1402	○	×
R1401	JUMPER	×
R1407	○	×
R1409	○	×
R1410	○	×
R1411	○	×
R1412	○	×
R1413	○	×
R1414	○	×
R1416	○	×
R1418	○	×
R1419	○	×
R1420	○	×
R1421	○	×
R1422	JUMPER	×
R1423	JUMPER	×
R1424	○	×
R1425	○	×

LCD CIRCUIT BOARD



LCD [LCD DRIVE] -SIDE A-



LCD [LCD DRIVE] -SIDE B-

[PATTERN No. JA1662-6]

VCA [MAIN]

6 - 43 VCA

IDENTIFICATION OF PARTS LOCATION

SE [SENSOR/GYRO]

Symbol No	Parts Location	Symbol No	Parts Location
C		R1413	B-2C
C1002	A-3C	R1414	B-1C
C1004	B-2A	R1416	B-2D
C1005	A-2D	R1417	A-3D
C1006	B-2A	R1418	B-1C
C1007	B-1C	R1419	B-2C
C1008	B-2A	R1420	B-1C
C1009	B-2A	R1421	B-2C
C1010	B-1A	R1422	B-2C
C1011	B-1B	R1423	B-1C
C1012	A-1C	R1424	B-2C
C1403	A-2A	R1425	B-2C
C1404	A-1B		
C1405	A-1A		
C1406	A-2C		
C1407	A-2A		
C1408	A-1B		
C1409	A-2A		
C1410	A-1B		
C1411	A-1C		
C1412	A-1C		
C1413	B-2C		
C1414	B-1C		
C1415	B-2C		
C1417	A-2C		
C1418	A-3D		
C1419	B-1C		
C1420	B-1C		
D			
D1002	B-2A		
IC			
IC1001	B-2B		
IC1401	A-2A		
IC1402	A-1B		
IC1403	B-1C		
PG			
PG1001	B-3C		
Q			
Q1001	B-2C		
Q1401	B-2D		
Q1402	B-2C		
R			
R1001	B-2C		
R1002	A-1C		
R1003	B-2A		
R1006	B-2A		
R1009	B-1A		
R1401	B-2C		
R1403	A-2A		
R1404	A-1B		
R1405	A-2A		
R1406	A-1B		
R1407	B-1C		
R1408	A-1C		
R1409	B-2C		
R1410	B-1C		
R1411	B-2C		
R1412	B-1C		

AUD [AUDIO]

Symbol No.	Parts Location	Symbol No	Parts Location	Symbol No	Parts Location	Symbol No	Parts Location
C		C0430R	A-2A	Q0411	A-1A	R0436M	A-1B
C0401L	A-2B	C0431L	A-1A	Q0412	A-1A	R0436R	B-2D
C0401R	B-2C	C0431M	B-2D	Q0414S	A-1B	R0437M	A-1B
C0402L	A-1B	C0431R	A-2A	Q0415	B-2B	R0438M	A-2C
C0402R	B-3D	C0432	B-1A	Q0417M	A-2B	R0438S	B-1B
C0403	B-2B	C0432M	B-2D	Q9401	A-2B	R0439S	A-1C
C0403M	B-2D	C0433	B-1B	R		R0440M	B-1C
C0403R	B-2C	C0434M	A-2C	R0401M	A-1C	R0440S	A-1C
C0404L	A-2C	C0435M	A-2C	R0402L	B-1B	R0442M	B-2C
C0404M	A-2C	C0436M	A-1A	R0402M	A-2B	R0445M	A-2A
C0404R	B-2D	C0437M	A-2B	R0402R	B-1D	R0445S	A-2A
C0405L	A-1B	C0438M	A-2C	R0403R	B-1C	R0446M	B-2C
C0405R	B-2D	C0439M	A-2B	R0404L	B-2B	R0447S	B-2C
C0406M	A-1B	C0440M	A-2B	R0404R	B-2D	R0448S	A-1C
C0406R	A-2D	C0441L	A-2B	R0405S	B-2C	R0449	B-1B
C0407L	B-2B	C0441R	B-3D	R0406M	B-1C	R0450S	B-2C
C0407R	B-2D	C0442	A-1A	R0406S	B-1C	R0451M	A-2C
C0408L	B-2B	C0443	A-2C	R0407S	B-2C	R0452S	A-2C
C0408M	A-1B	C0445S	B-1C	R0408S	A-2C	R0453M	A-2B
C0408R	B-1D	C0446M	A-1C	R0409M	A-2C	R0454M	B-2C
C0409L	B-1B	C0447M	A-2C	R0409S	A-2A	R0455M	A-2B
C0409M	B-2B	C0448	A-1B	R0410M	A-1C	R0456S	B-2B
C0409R	B-1C	C0449S	B-2A	R0410S	B-2C	R0458M	A-2B
C0410L	B-1B	C0450S	B-1A	R0411S	B-2B	R0459M	A-2B
C0410M	B-2B	C0451L	B-2A	R0412M	B-1C	R0460	B-1A
C0410R	B-1C	C0451R	B-1A	R0413L	A-2C	R0460M	B-2D
C0411L	B-2B	C0451S	B-1A	R0413R	A-2C	R0461	A-1A
C0411M	B-2B	C0452S	B-2A	R0414S	A-2A	R0461M	B-2D
C0411R	A-2C	C0462L	A-2C	R0415M	B-2C	R0462	B-2B
C0412L	A-1C	C0462R	B-2C	R0415S	B-2B	R0472M	A-2B
C0412M	B-2B	C0463	A-1B	R0417L	A-1A	R0473	A-1A
C0412R	A-2D	C0467S	A-1B	R0417M	B-2C	R0474	A-1A
C0413M	A-1C	C0472M	A-2B	R0417R	A-2A	R0475M	A-2B
C0413S	B-1B	C0474S	B-2A	R0418L	A-1A	R0476M	A-2B
C0414M	B-1B	C0476L	B-1A	R0418M	A-2C	R0480S	A-1B
C0415	B-1B	C0476R	B-2A	R0418R	A-2B	R0481S	A-1B
C0416M	A-1C	C0482	A-2B	R0419L	A-1B	R0483	B-3A
C0416S	B-1B	C0483S	B-1A	R0419R	A-2A	R0486S	B-1A
C0417M	A-1B	C0484M	A-2D	R0420L	B-1A	R0487S	B-2A
C0417R	B-1C	C0485M	B-1D	R0420M	A-2C	R0488L	B-1A
C0418L	A-1C	C0485S	B-1D	R0420R	B-2A	R0488R	B-2A
C0418M	B-1B	C9401	A-2B	R0421L	B-1A	R0489L	B-1A
C0418R	B-1C	IC		R0421M	A-2C	R0489R	B-1A
C0419L	B-1A	IC0401	B-1C	R0421R	B-2A	R0490L	B-1A
C0419M	A-1C	IC0402S	B-1B	R0422M	A-2B	R0490R	B-2A
C0419R	B-2A	IC0403S	B-1A	R0423M	A-2B	R0491L	B-1A
C0420M	A-1B	L		R0424M	A-2B	R0491R	B-1A
C0422M	A-1C	L0401	B-2A	R0425M	B-2A	R0492L	B-2A
C0422S	A-1B	L0403	A-2B	R0426M	B-2D	R0492R	B-1A
C0423M	A-1C	L0405	A-1A	R0427M	B-2C	R0493L	B-1A
C0423S	B-2B	PG		R0428M	B-1B	R0493R	B-2A
C0424L	B-1A	PG0401	A-2A	R0429R	A-2A	R0494L	B-1A
C0424R	B-2A	PG0405	A-3A	R0430M	A-2B	R0494R	B-2A
C0425	A-1C	Q		R0431M	B-2B	R9401	A-2B
C0426S	B-2C	Q0403L	A-1B	R0432	A-2B	R9402	A-2B
C0428	A-1D	Q0403M	A-2B	R0433	A-1B	R9403	A-2B
C0429M	A-2C	Q0403R	A-2B	R0434M	B-2B	R9404	A-2B
C0430L	A-1A	Q0404	B-1A	R0435S	B-1B	ZD	

Symbol No	Parts Location
ZD0404	A-2A
ZD0405	A-2B

EMQ [ELECTRONIC VIEWFINDER]

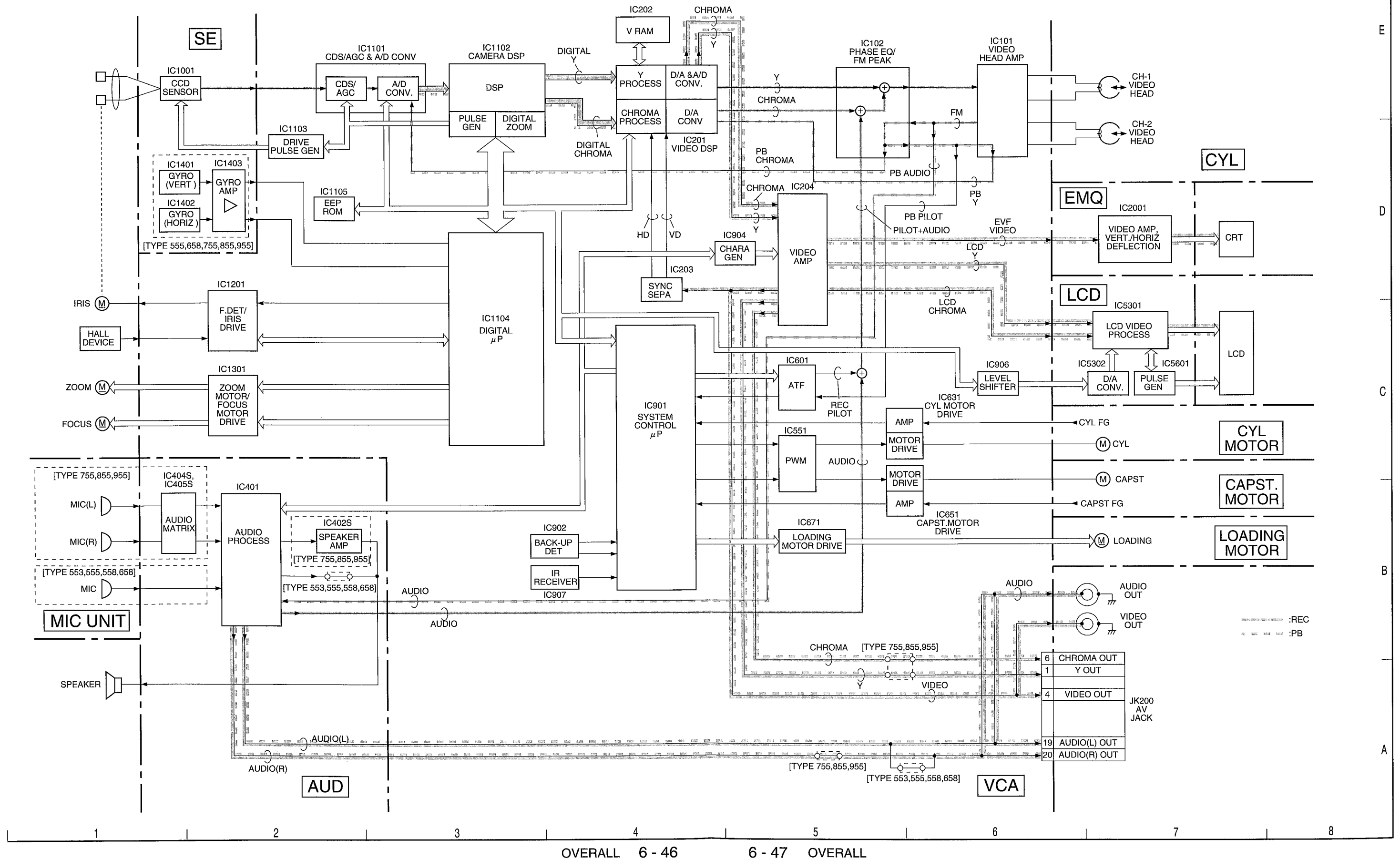
Symbol No	Parts Location	Symbol No	Parts Location
C		RT	
C2001	B-1B	RT2001	A-2A
C2002	B-2A	RT2002	A-3A
C2003	B-2A	RT2003	B-1A
C2004	A-2B	T	
C2005	A-1A	T2001	A-1A
C2006	A-2A		
C2007	A-2A		
C2008	B-2A		
C2009	A-1A		
C2011	A-2A		
C2012	A-2B		
C2013	A-4B		
C2014	A-4B		
C2015	A-3A		
C2016	A-3A		
C2017	B-2A		
C2018	B-1A		
D			
D2001	B-3A		
D2002	A-1A		
IC			
IC2001	A-4A		
L			
L2001	B-3A		
L2002	A-1B		
PG			
PG2001	A-3B		
PG2002	A-4A		
Q			
Q2001	A-2B		
Q2002	A-3A		
R			
R2001	A-1B		
R2002	A-2A		
R2003	A-2A		
R2004	A-2A		
R2005	A-2A		
R2006	A-1A		
R2007	A-1A		
R2008	A-2B		
R2009	A-3B		
R2011	A-2A		
R2012	A-2B		
R2013	A-3A		
R2014	A-3A		
R2015	A-4B		
R2016	B-1A		
R2017	A-3B		
R2018	A-3A		
R2019	A-3A		
R2020	A-3A		
R2021	B-1A		
R2022	A-4A		
R2024	A-2A		
R2025	A-3A		
R2026	B-1A		
R2027	B-1A		

LCD [LCD DRIVE]

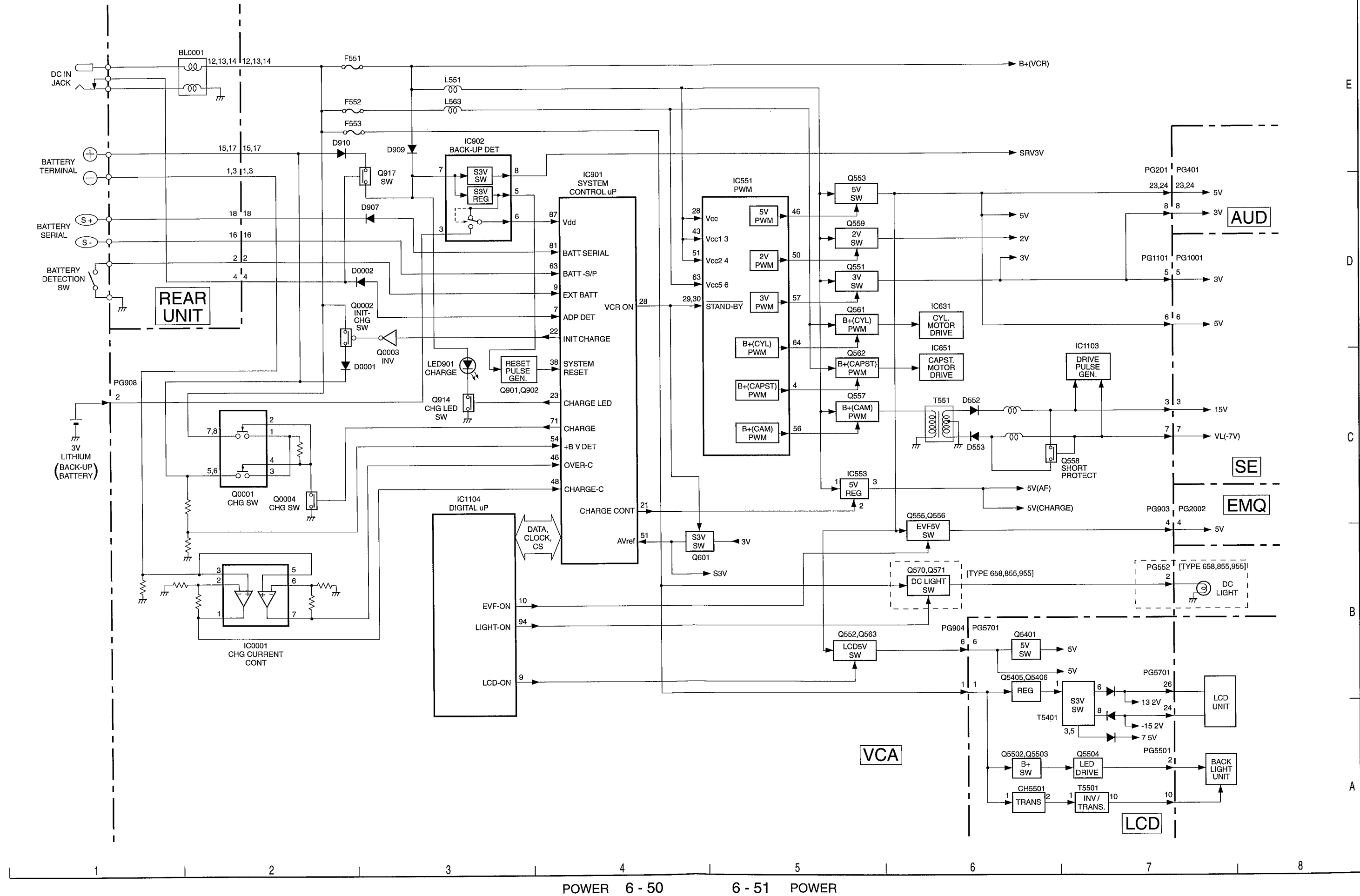
Symbol No	Parts Location	Symbol No	Parts Location	Symbol No	Parts Location	Symbol No	Parts Location	Symbol No	Parts Location	Symbol No	Parts Location	Symbol No	Parts Location
C		C5421	B-1C	D5601	B-1B	Q5612	A-3A	R5416	A-2B	R5656	A-3A		
C5304	B-3C	C5422	B-2B	D5602	A-1B	Q5613	A-3A	R5417	B-1D	R5657	A-2B		
C5305	B-3B	C5501	B-2D	IC		Q5614	A-3A	R5420	B-1B	R5658	A-2B		
C5306	B-2B	C5502	B-2D	IC5301	B-3A	Q5615	A-1B	R5501	B-2D	R5708	B-1A		
C5308	B-3C	C5503	B-2D	IC5302	B-3D	R		R5502	B-1D	R5709	B-1A		
C5309	B-2A	C5504	B-2D	IC5401	A-1C	R5301	B-2B	R5503	B-2D	R5716	B-3F		
C5310	B-2A	C5505	B-2D	IC5501	B-2D	R5302	B-2B	R5504	B-2D	R5717	B-2F		
C5312	A-2A	C5506	B-2E	IC5502	B-2E	R5304	B-3C	R5505	B-2D	R5718	B-3E		
C5313	A-3A	C5507	B-2C	IC5601	B-2A	R5307	A-3B	R5506	B-1D	R5719	B-3E		
C5314	B-3A	C5508	B-2C	IC5602	A-2B	R5308	A-3B	R5507	B-1D	R5720	B-3E		
C5315	B-3A	C5509	B-1C	L		R5309	B-2A	R5508	B-2D	R5721	B-2E		
C5316	B-3A	C5510	B-1C	L5301	B-3C	R5310	B-2A	R5509	B-1D	R5722	B-2F		
C5317	B-3B	C5511	A-2C	L5302	B-3C	R5313	A-3A	R5510	B-1D	R5723	B-2E		
C5318	A-3A	C5512	A-2C	L5304	B-2B	R5314	A-3A	R5511	B-1D	R5724	B-2E		
C5319	A-3A	C5513	B-3D	L5305	B-3D	R5315	B-3A	R5512	B-2E	SW			
C5320	B-3B	C5514	A-1E	L5401	A-2C	R5316	B-3A	R5513	B-2E	SW5701	B-3A		
C5321	B-3B	C5515	B-3D	L5402	A-1C	R5317	B-3A	R5514	B-2E	SW5702	B-3F		
C5322	B-3B	C5516	B-3D	L5403	A-1C	R5318	B-3A	R5515	B-2E	SW5703	B-2F		
C5323	B-3B	C5517	B-3D	L5404	A-1C	R5319	A-3A	R5518	B-2D	SW5704	A-3E		
C5324	B-3B	C5518	B-2C	L5501	B-2C	R5320	A-3A	R5519	B-2D	T			
C5325	B-3C	C5519	B-2C	L5502	A-2C	R5325	B-3B	R5522	B-1C	T5401	A-1C		
C5326	B-3C	C5603	B-1B	L5503	A-2C	R5326	B-3B	R5523	B-1C	T5501	A-2D		
C5327	B-3B	C5604	A-1B	L5601	A-2A	R5331	B-3C	R5524	B-1C	X			
C5328	A-2B	C5605	B-2B	L5602	A-1A	R5332	B-3C	R5525	A-2E	X5301	A-2A		
C5330	B-2B	C5606	B-2B	L5603	A-2A	R5336	B-3B	R5526	A-2E	ZD			
C5331	B-2A	C5607	B-1B	L5604	A-1B	R5338	B-3B	R5529	B-2C	ZD5601	A-1A		
C5332	B-2B	C5608	A-2A	PG		R5339	B-3B	R5601	B-2A	ZD5701	B-3F		
C5333	B-2A	C5609	A-2A	PG5301	A-3D	R5340	B-3B	R5603	B-2C				
C5334	B-2A	C5610	A-1A	PG5501	A-1D	R5343	B-3B	R5610	B-2A				
C5335	B-2A	C5611	A-1B	PG5701	A-3C	R5345	A-2B	R5611	B-2B				
C5336	B-3C	C5612	A-1B	PG5702	A-1B	R5346	A-2B	R5612	B-2A				
C5337	B-3C	C5613	A-1B	PG5703	A-3B	R5347	B-2A	R5615	B-1B				
C5338	B-3C	C5615	A-2B	Q		R5349	B-2A	R5616	B-2B				
C5340	A-3A	C5616	A-2A	Q5301	B-2B	R5351	B-3B	R5617	A-2B				
C5341	A-3A	C5617	B-1B	Q5302	B-2B	R5354	A-3A	R5618	A-1B				
C5342	B-3D	C5619	B-1B	Q5303	B-3B	R5357	A-3B	R5619	A-2B				
C5343	B-3C	C5620	A-2A	Q5304	A-2B	R5361	B-3B	R5620	A-1A				
C5390	B-3E	C5621	A-1A	Q5390	B-3E	R5362	A-2B	R5621	A-2B				
C5401	B-2C	C5622	A-1A	Q5401	B-1C	R5363	A-3B	R5622	A-1A				
C5402	B-1C	C5623	A-1B	Q5402	B-2C	R5364	B-3C	R5623	A-1B				
C5403	B-2C	C5624	B-2B	Q5403	B-1C	R5365	B-3C	R5625	A-1B				
C5404	B-2C	C5625	B-1A	Q5404	B-2C	R5366	B-3C	R5627	A-1B				
C5405	B-2C	C5626	B-2A	Q5405	A-2C	R5367	A-2B	R5631	A-2B				
C5406	A-2B	C5627	A-1A	Q5406	A-2B	R5390	B-3E	R5632	A-2B				
C5407	A-1B	C5628	A-1A	Q5501	B-1C	R5401	B-1C	R5633	A-2B				
C5408	A-1B	C5629	A-1A	Q5502	B-2D	R5402	B-1C	R5634	A-2B				
C5409	B-2C	C5630	A-1A	Q5503	B-2D	R5404	A-1C	R5635	A-2B				
C5410	A-2C	C5631	A-1A	Q5504	B-1D	R5405	A-1C	R5636	A-2B				
C5411	A-2C	C5701	A-3D	Q5505	B-1D	R5406	A-2C	R5637	A-1A				
C5412	A-2C	C5702	A-3C	Q5506	B-2D	R5407	A-1B	R5638	B-1B				
C5413	A-2B	C5711	A-3B	Q5507	B-2D	R5408	A-1C	R5639	B-1B				
C5414	B-1D	D		Q5509	B-2D	R5409	B-1C	R5642	A-1A				
C5415	A-1C	D5301	A-2B	Q5510	B-1C	R5410	B-1C	R5643	A-2A				
C5416	B-1D	D5401	B-2C	Q5511	A-2C	R5411	B-1C	R5644	A-1A				
C5417	B-1C	D5402	A-2C	Q5512	B-2D	R5412	B-1C	R5649	B-2A				
C5418	B-1C	D5403	A-1C	Q5513	B-2E	R5413	B-1C	R5651	B-2A				
C5419	B-1C	D5404	B-1D	Q5607	B-2A	R5414	A-2B	R5654	A-3A				
C5420	B-1C	D5501	B-2E	Q5611	A-3A	R5415	A-2C	R5655	B-2A				

BLOCK DIAGRAMS

1. OVERALL



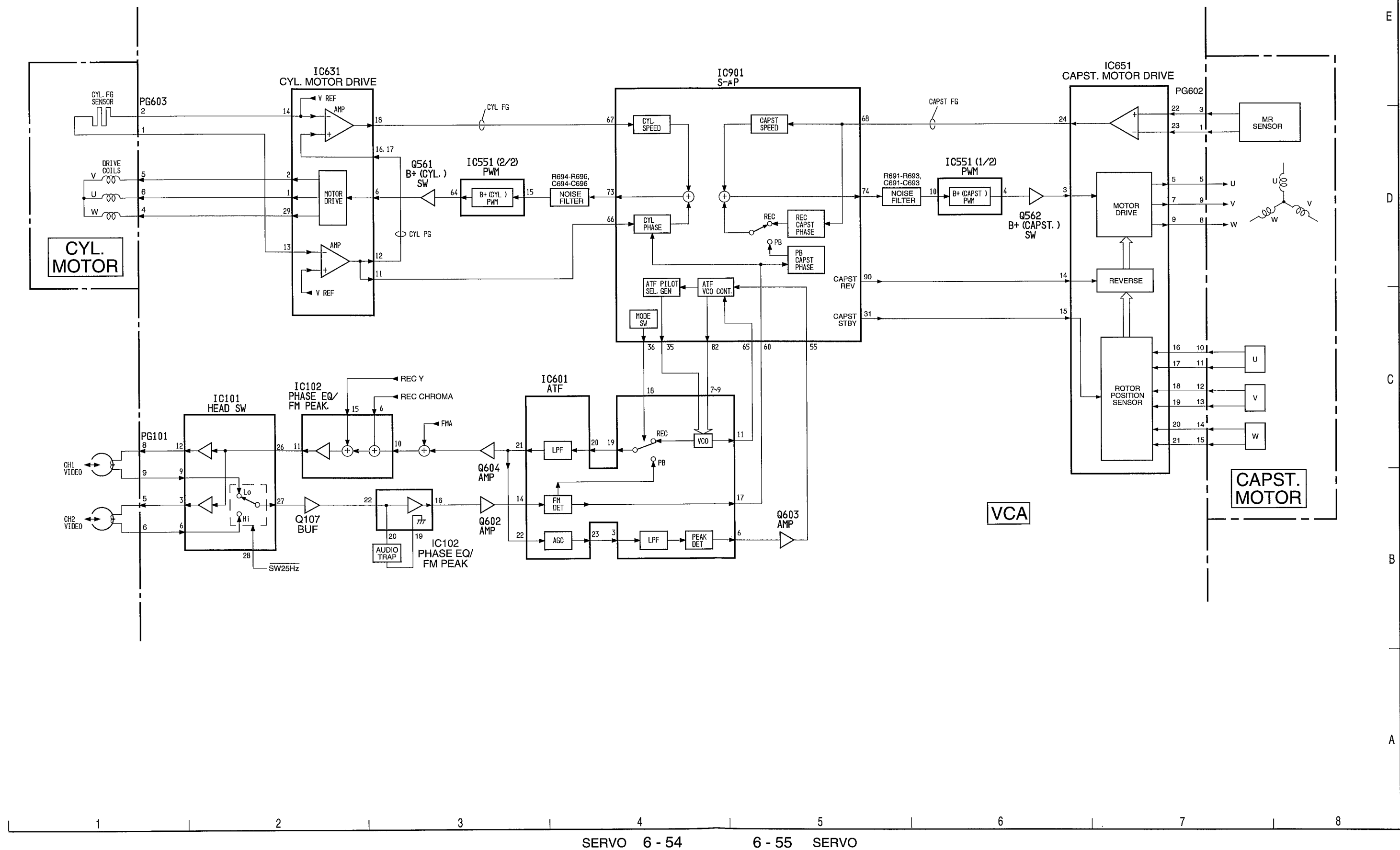
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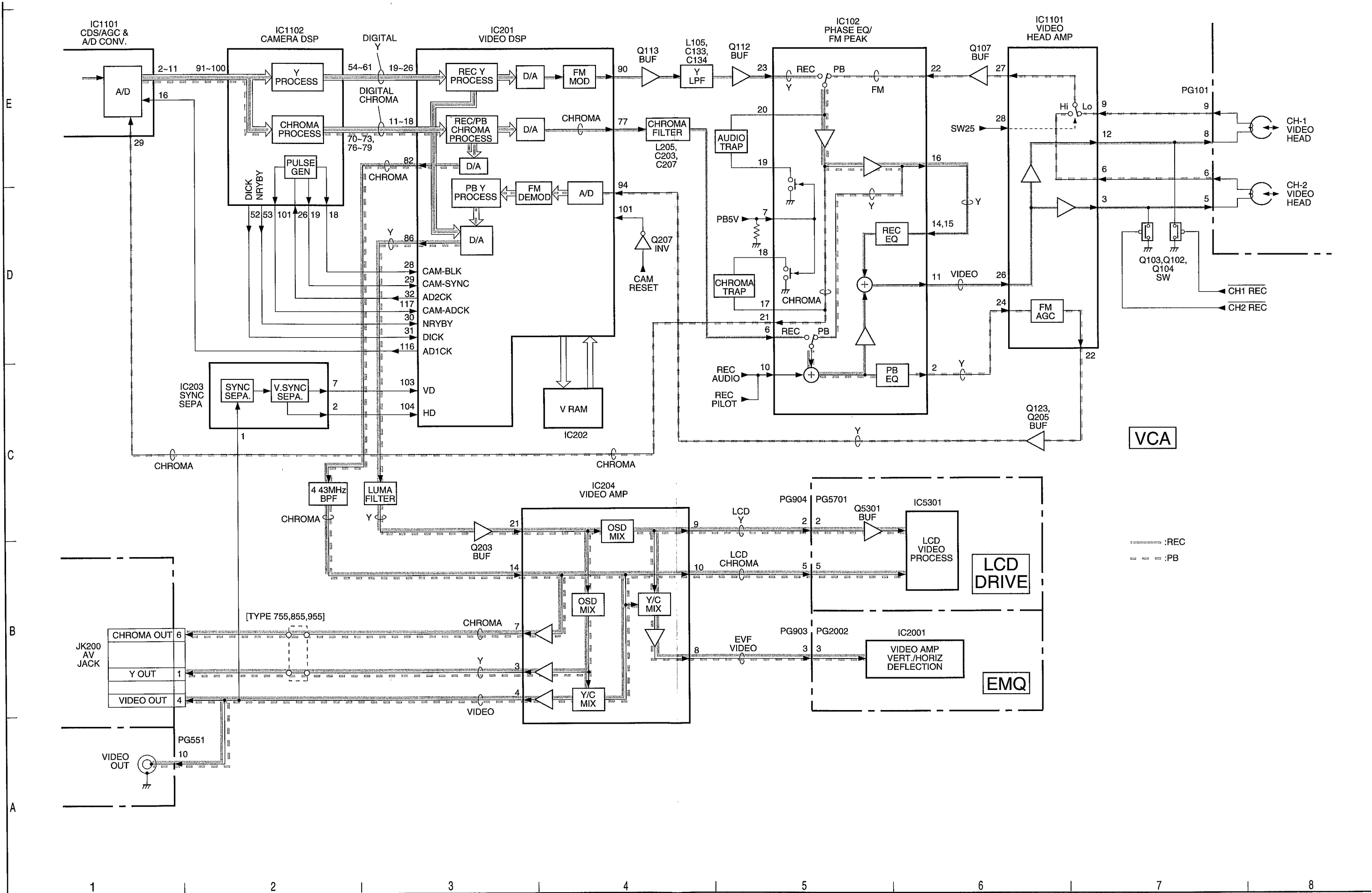
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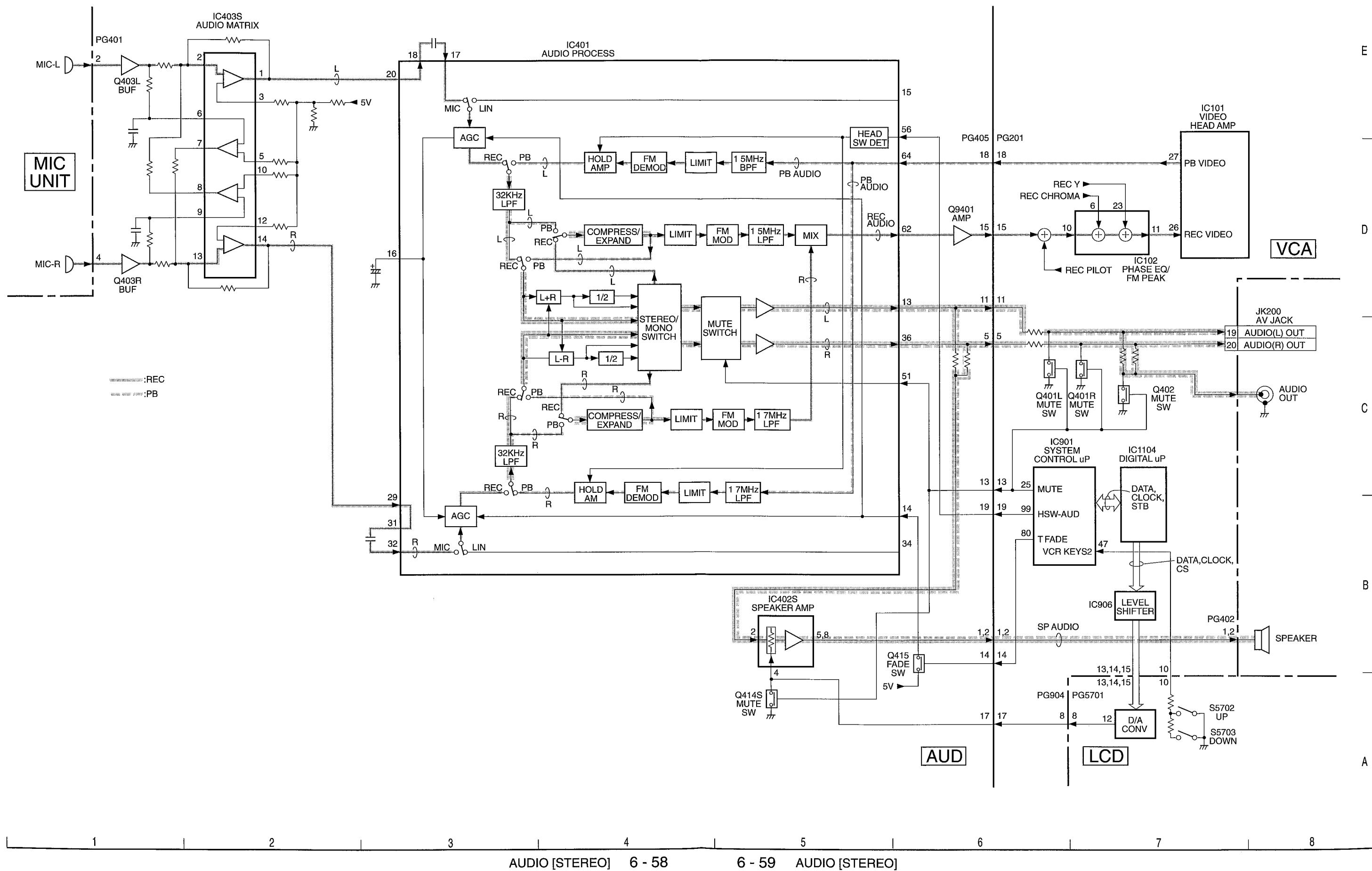
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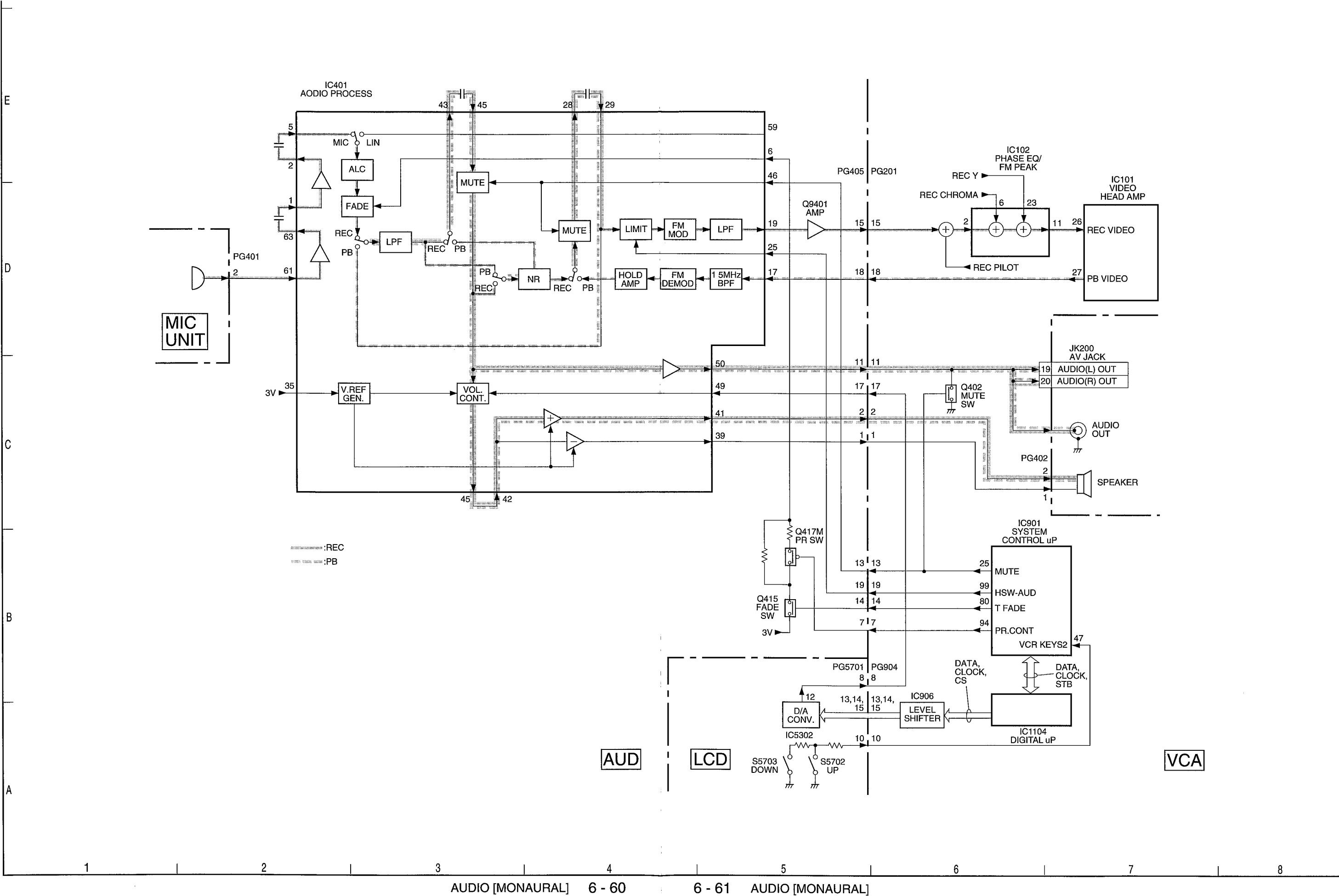
6. VIDEO



7. AUDIO [STEREO] – TYPE 755, 855, 955 –



8. AUDIO [MONAURAL] – TYPE 553, 555, 558, 658 –



MICROPROCESSOR PIN FUNCTION TABLES

1. Digital Microprocessor (IC1104: D-μP)

Pin No.	I/O	Active Level	Abbreviation	Function
1	O	(Pulse)	LD-DSP	Activates data communications with IC1102 (DSP) and IC201 (VIDEO DSP).
2	O	(Pulse)	CS-LCD	Activates data communications with IC5302 (D/A CONV.) via IC906 (LEVEL SHIFT).
3	----	----	CS-VAP	Not used. Open.
4	O	Hi	GYRO-RST	Drives Q1402 (GYRO RESET) via Q1401 (INV.) to reset IC1401 (GYRO VERT.) and IC1402 (GYRO HORIZ.).
5	----	----	-----	Not used.
6	----	----	CHARGE	Not used. Open.
7	I	Lo	LCD-OPEN	Input to discriminate whether of LCD monitor is opened or closed. Hi: Close, Lo: Open.
8	I	Hi/Lo	LCD-REV	Input to discriminate whether of LCD monitor is turned over.
9	O	Hi	LCD-ON	LCD power control output. Outputs "Hi" when power is turned on.
10	O	Hi	EVF-ON	Electronic viewfinder (EVF) power control output. Outputs "Hi" when power is turned on.
11	O	Hi/Lo	PAL60-ON	Output to select the mode of the output video signal (NTSC or PAL 60).
12	----	----	VCC	3V power input.
13	----	----	-----	Not used. Open.
14	----	----	GND	Ground.
15	----	----	CLOSS-U	Not used. Open.
16	----	----	CLOSS-D	
17	----	----	CLOSS-L	
18	----	----	CLOSS-R	
19	----	----	ENTER	
20	----	----	-----	
21	----	----	-----	
22	----	(Pulse)	IRIS PWM	Iris motor drive output .
23	----	----	-----	Not used. Open.
24	----	----	-----	
25	----	----	CHECK8	
26	O	Hi	TALLY	Drives Q915 (TALLY SW) to turn LED902 (TALLY) on during recording.
27	----	----	-----	Not used. Open.
28	O	Hi	CAM-FADE	Rapid video (camera output) signal fading output. Outputs "Hi" when fading is started to fade the video signal.
29	----	----	-----	Not used. Open.
30	O	(Pulse)	ZDOEB	Activates zoom drive data communications with IC1301 (FOCUS MOTOR/ZOOM MOTOR DRIVE).
31	O	(Pulse)	FOOEB	Activates focus drive data communications with IC1301 (FOCUS MOTOR/ZOOM MOTOR DRIVE).
32	O	(Pulse)	ZOOM-LED	Output pulses to drive the ZOOM LED in the lens block.
33	O	(Pulse)	FCUS-LED	Output pulses to drive the FOCUS LED in the lens block.
34	O	PWM	ZD-PWMB	Outputs zoom motor drive signal to IC1301 (FOCUS MOTOR/ZOOM MOTOR DRIVE).
35	O	PWM	ZD-PWMA	
36	O	PWM	RD-PWMB	Outputs focus motor drive signal to IC1301 (FOCUS MOTOR/ZOOM MOTOR DRIVE).
37	O	PWM	RD-PWMA	
38	I	(Pulse)	FV	Receives the vertical sync pulses that detect the iris detection area, from IC1102 (DSP).
39	----	----	-----	Not used. Open.
40	I	(Pulse)	REM-IR	Remote operation signal input from the AV Jack (pin 12 of JK200)
41	I	(Pulse)	HD	Horizontal sync input.
42	----	----	GND	Ground.
43	O	0V-5V	HAL-ADJ.1	Controls the offset voltage of IC1201 (F.DET/IRIS DRIVE).
44	O	0V-5V	HAL-ADJ0	Drives bias generator in IC1201 (F.DET/IRIS DRIVE) via Q1201 (BUF) to control the bias voltage of the Hall devices.
45	----	----	-----	Not used. Open.
46	I	0V-5V	ZOOM-SW	Zoom (TELE/WIDE) switch detection inputs.

Pin No.	I/O	Active Level	Abbreviation	Function
94	I	Hi	LIGHT-ON	Light power control output. Outputs "Hi" when power is turned on.
95	-----	-----	ACTIVE	Not used. Open.
96	O	(Pulse)	CLK-CDS	Transfer data to IC1101 (CDS/AGC & A/D CONV.).
97	O	(Pulse)	SDO-CDS	
98	O	(Pulse)	CS-CDS	Activates data communications with IC1101 (CDS/AGC & A/D CONV.).
99	O	(Pulse)	CS-EE	Activates data communications with IC1105 (EEP-ROM).
100	O	(Pulse)	CS-SYS	Activates data communications with IC901 (S-μP).

2. System Control Microprocessor (IC901: S-μP)

Pin No.	I/O	Active Level	Abbreviation	Function
1	O	Lo	CH2. REC[Lo]	Output the signals to select the video heads for recording.
2	O	Lo	CH1. REC[Lo]	Go "Lo" in the corresponding channel period during recording.
3	O	(Pulse)	SW30[Lo]	Antiphase head switching pulse output.
4	O	(Pulse)	SW30(SW25)	Head switching pulse output.
5	I	Hi	TEST/NOR[Lo]	Test program start detection input. A test program is executed when "Hi" is input.
6	-----	-----	-----	Not used. Open.
7	I	Hi	ADP DET	AC adapter connection detection input.
8	I	3V	PRE-V	Not used.
9	I	Lo	EXT BATT	Battery attachment detection input.
10	I	0V-3V	M-SW2	Mechanism state switch position (mode) detection input.
11	I	0V-3V	M-SW1	
12	I	0V-3V	M-SW0	
13	I	Lo	CAM SW[Lo]	Power switch detection input. "Lo" is input during recording (camera mode).
14	I	Lo	VCR SW[Lo]	Power switch detection input. "Lo" is input during playback (VCR mode).
15	I	Lo	EJECT SW[Lo]	Eject switch detection input. When "Lo" is input, the camera/recorder performs the eject operation even when the power is turned off (standby release input).
16	I	Lo	STAGE[Lo]	Cassette holder open/close detection input. "Lo" is input when the cassette holder is closed.
17	I	Hi/Lo	ME/MP[Lo]	Input to discriminate the type of tape. Hi: ME (metal evaporated) tape, Lo: MP (metal particle) tape.
18	I	Lo	WAKE UP[Lo]	Standby release input. When the camera power is turned on, "Lo" is input to release the standby mode. IC901 detects the inputs of each switch to start operation.
19	I	Lo	REC START[Lo]	Recording start/stop switch detection input.
20	I	Lo	AV CONT	Input to detect whether an external AV signal is input or not. "Lo" is input when an AV input cable is connected to the AV input/output connector (JK200: AV JACK).
21	O	Hi	CHARGE CONT	Controls IC553 (AF5V GEN.) to generate autofocus power supply (AF) 5V and charge circuit power supply (CHARGE) 5V.
22	O	Hi	INIT CHARGE	Charge mode control output. Outputs "Hi" when the voltage of the attached battery is 5.8V or less, to set the camcorder to the initial charge mode.
23	O	Hi	CHARGE LED	Outputs "Hi" during charging to control Q914 (CHG LED SW) so that the CHARGE LED (LED901) lights.
24	-----	-----	CHG-PROT	Not used.
25	O	Hi	MUTE	Audio muting output. Outputs "Hi" to mute sound.
26	O	Hi/Lo	CAM[Lo]/LINE	Video processor mode control output. Outputs "Lo" during camera recording and "Hi" with an external (line) signal.
27	O	(Pulse)	END LED	End LED drive output. Outputs pulses of approx. 50Hz when power is turned on.
28	O	Hi	VCR ON	Power control output. Outputs "Hi" when power is turned on.

Pin No.	I/O	Active Level	Abbreviation	Function
29	O	Lo	OSD RESET [Lo]	Outputs "Lo" with power on and is set to open with power off to initialize IC904 (CHARA. GEN.).
30	O	(Pulse)	CEVF-CS	Not used.
31	O	Hi	C.STANDBY	Capstan motor power control output.
32	-----	-----	-----	Not used. Open.
33	O	Hi	VDSP-RST	IC201 (VIEDO DSP) power supply control output. Outputs "Lo" when power is turned on and "Hi" when power is turned off to initialize IC201 (VIDEO DSP).
34	O	Lo	CAM RESET [Lo]	Camera block power supply control output. Outputs "Hi" when power is turned on and "Lo" when power is turned off to initialize the camera block (IC1104: D-μP).
35	O	Hi/Lo	f4SEL	Auto track finding (ATF) pilot signal select output.
36	O	Hi/Lo	TRK. MOD	Output to select the pilot signal from IC601 (ATF). Hi: VCO output, Lo: Playback (PB) FM signal
37	-----	-----	GND	Grounded.
38	I	Lo	SYSTEM RESET[Lo]	Microprocessor reset input. "Lo" input resets the microprocessor.
39	-----	-----	GND	Grounded.
40	O	(Pulse)	XTAL OUT 12MHz	Drive X901 to generate 12MHz main clock pulses.
41	I	(Pulse)	EXTAL IN 12MHz	
42	I	(Pulse)	D-STB(DSP)	For data communications with IC1104 (D-μP) and IC201 (VIDEO DSP).
43	I	(Pulse)	D-DATA(DSP)	
44	O	(Pulse)	S-DATA(DSP)	
45	I	(Pulse)	D-CLOCK(DSP)	
46	I	0V-3V	OVER C	Overcurrent detection input during charging. Changes the gain during charging to monitor the charge current.
47	I	0V-3V	VCR KEY2	VCR operation switch detection input (playback, date/title etc.).
48	I	0V-3V	CHARGE C	Charge current detection input. Monitors the charge current during charging.
49	I	0V-3V	BATTERY	Input to detect the battery remaining level.
50	-----	-----	GND	Grounded.
51	I	-----	AVref	Reference voltage input. Connect to 3V line.
52	-----	-----	AVdd	3V power input.
53	I	Hi/Lo	CASSETTE-SW	Erase prevention tab and Hi-8/Normal of the cassette detection input.
54	I	0V-3V	+B VDET	Battery voltage detection input. Monitors the attached battery voltage.
55	I	(Pulse)	PB PILOT	Playback pilot signal (PB PILOT) input.
56	I	0V-3V	VCR KEY1	VCR operation switch detection input (rewind, fast forward, stop) and remote control data from the AV Jack (pin 17 of JK200).
57	I	0V-3V	TRACK ADJ.	For the connection of a tracking control for adjustment. When an ATF-R jig is connected to PG601 (test plug), the variable resistor on the ATF-R jig can be used as a tracking control.
58	I	(Pulse)	EST	Take-up tape end detection input.
59	I	(Pulse)	ESS	Supply tape end detection input.
60	I	(Pulse)	PB.ENV	Playback (PB) FM signal input.
61	I	(Pulse)	RSS	Supply/take-up reel sensor inputs. Used to calculate the remaining tape and to detect reel lock.
62	I	(Pulse)	RST	
63	I	Hi/Lo	BATT-S/P	Maker of the battery detection input.
64	I	(Pulse)	C.SYNC	Composite sync signal input. The separated vertical sync signal is divided by two to generate the 1/2V.SYNC pulse which is used to control the cylinder speed during recording (reference signal).
65	I	(Pulse)	VCO IN	Receive the signal from the VCO in IC601 (ATF) to fix the frequency of the recording pilot signal (VCO's output).
82	O	(Pulse)	VCO CONT	
66	I	(Pulse)	DPG	Tach pulse input. Feedback signal that controls the recording phase of the cylinder.

Pin No.	I/O	Active Level	Abbreviation	Function
67	I	(Pulse)	DFG	Cylinder FG (CYL. FG) pulse input. Controls the cylinder speed during recording and playback.
68	I	(Pulse)	CFG	Capstan FG (CAPST.FG) pulse input. Used for counting of the linear time counter and recording restart control (assemble recording).
69	O	Hi	LOAD	Loading motor drive outputs.
70	O	Hi	UNLOAD	
71	O	Hi	CHARGE	Charge circuit control output. Outputs "Hi" during charging to activate the charge circuit.
72	O	(Pulse)	OSD CS	Activates communications with IC904 (CHARA. GEN.).
73	O	PWM	D.SPEED	Cylinder servo control outputs.
74	O	PWM	C.SPEED	Capstan servo control outputs.
75	I	(Pulse)	CFG	Capstan FG (CAPST.FG) pulse input. Used for counting of the linear time counter and recording restart control (assemble recording).
76	I	Lo	V-DET[Lo]	Inputs whether a battery is attached or not. "Lo" is input when the battery is detached, to shift the microprocessor to the backup mode in which the data is saved.
77	O	Lo	S.EDIT[Lo]	Table-top VCR mode control output. The operation mode of the VCR connected to JK200 (AV JACK) is controlled remotely using the pause switch.
78	O	(Pulse)	D. OUT	For data communications with IC904 (CHARA. GEN.) and IC401 (AUDIO PROCESS (For Stereo)).
80	O	Hi	T.FADE	Rapid audio fading output. Outputs "Hi" when fading is started to fade the audio signal in rapidly.
81	I	Hi/Lo	BATT SERIAL	Battery serial time detection input.
83	I	(Pulse)	REMOCON	Remote operation signal input from the infrared receiver and AV Jack (pin 12 of JK200)
84	I	(Pulse)	32MHz TEX IN	Generate 32kHz sub-clock pulses.
85	O	(Pulse)	32MHz TX OUT	
86	-----	-----	GND	Ground.
87	-----	-----	Vdd	3V power input.
88	-----	-----	-----	Not used. Connected to 5V power supply.
89	-----	-----	-----	Not used. Open.
90	O	Hi	C.REVERSE	Capstan motor reversing control output.
91	O	Hi	REC	Output to control the video processor during recording.
92	O	Hi/Lo	PB	Output to control the video processor mode. Goes "Hi" during playback.
93	O	Hi	D.STANDBY	Cylinder motor start auxiliary output. Outputs "Hi" for 50 ms when the motor is started in the forward rotation direction.
94	O	Lo	PR.CONT	Preamp activation signal. Outputs "Hi" during playback to activate the preamp.
95	O	(Pulse)	HD	Artificial H. sync signal output.
96	O	(Pulse)	ADDV+ SQUELCH	Artificial V. sync signal + video muting signal output.
97	O	Hi/Lo	16 9	Output to select the display mode (normal or 16 9 (wide vision)).
98	O	Hi/Lo	LCD-HOLD	Controls the LCD control circuit operation mode.
99	O	(Pulse)	AUDIO30(25)	Outputs switching pulses to IC401 (AUDIO PROCESS).
100	O	Hi	FE CONT	Flying erase head oscillation control output .

1. SELF-DIAGNOSTIC FUNCTION

1.1 Overview

The camera/recorder has the following self-diagnostic function.

- Occasional defect self-diagnostic function (A mode)
- Mechanical block self-diagnostic function (B mode)

Fig. 1-1 shows the self-diagnostic coverage range.

The self-diagnostic functions of the camera/recorder are engaged by the system control (main) μ P (IC0901) which detects, memorizes and displays data related to defects in the mechanical block control system.

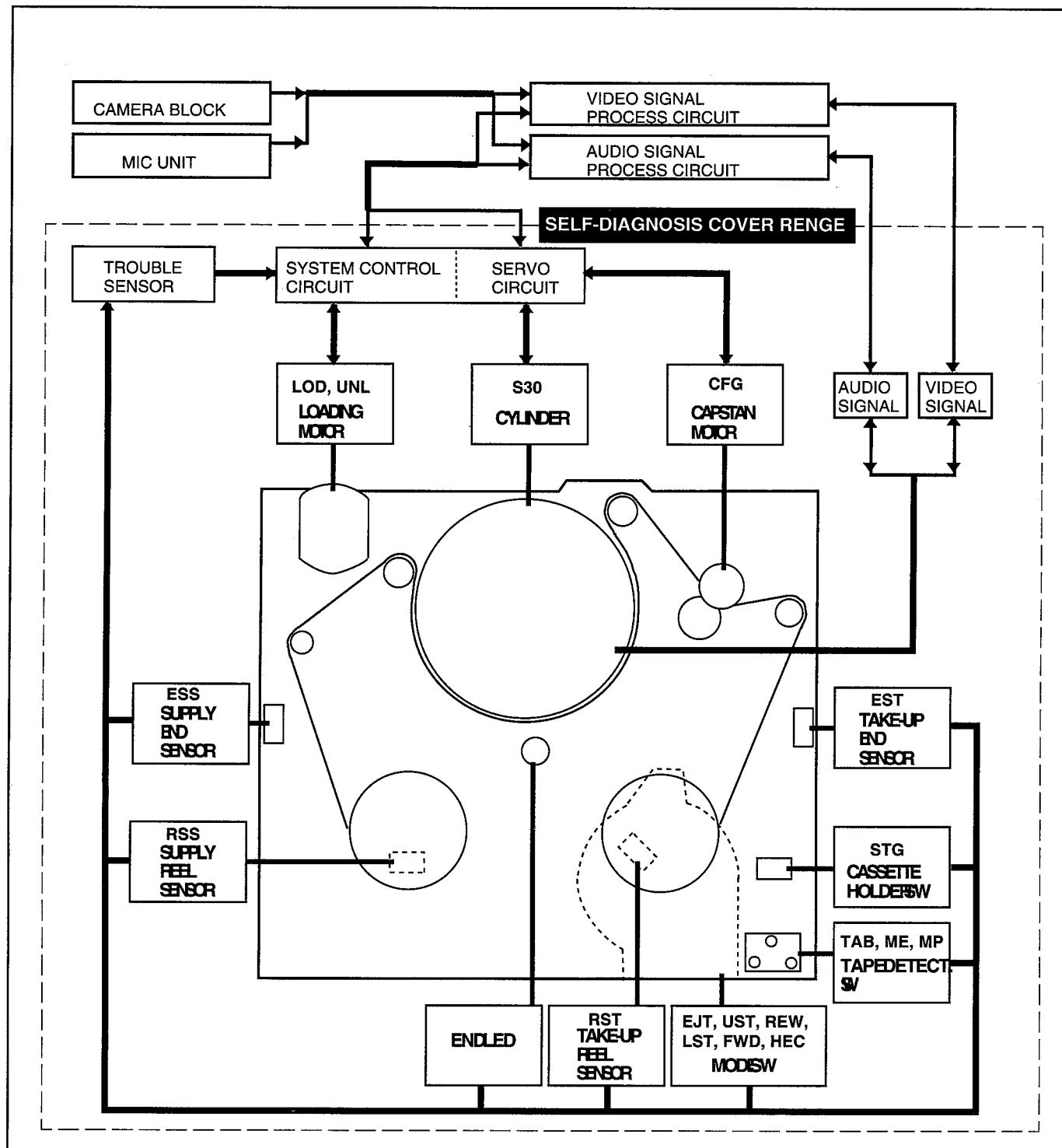


Fig. 1-1 Self-Diagnostic Coverage Range

1.2 Details of Display/Detection and Applications

Table 1-1 summarizes the details of display/detection of the self-diagnostic functions and their applications.

Fig. 1-2 shows the operational processes of the self-diagnostic functions.

Table 1-1 Details of Display/Detection of Self-Diagnostic Functions and their Applications

	Occasional defect self-diagnostic function (A mode)	Mechanical block self-diagnostic function (B mode)
Details of display/detection	The system control μ P memorizes and displays the defect data. (If several defects have occurred, only the last defect detected is memorized.)	Displays the data for the defect that has occurred when the B mode is set.
Application	Used when the defective symptom is not reproduced during servicing.	Used to detect the cause of the defect (in the mechanical block or electrical circuits) and to determine the defective position of the mechanical block.
Detected parts	Trouble sensors • Take-up end sensor (EST) • Supply end sensor (ESS) • Take-up reel sensor (RST) • Supply reel sensor (RSS) Cylinder (S30) Capstan motor (CFG)	Trouble sensors • Take-up end sensor (EST) • Supply end sensor (ESS) • Take-up reel sensor (RST) • Supply reel sensor (RSS) Cylinder (S30) Capstan motor (CFG) Loading motor (LOD, UNL) Mechanism mode switch (EJT, UST, REW, LST, FWD, HEC) Tape detection switches, etc. • Erase prevention tab detection switch (TAB) • ME/MP detection switch (ME) • Hi-8 MP detection switch (MP) • Cassette holder switch (STG)
Cautions	When the rewind mode is entered, the defect data is erased.	Engage the B mode after completing the A mode. If the B mode is engaged first, the defect data may be erased.

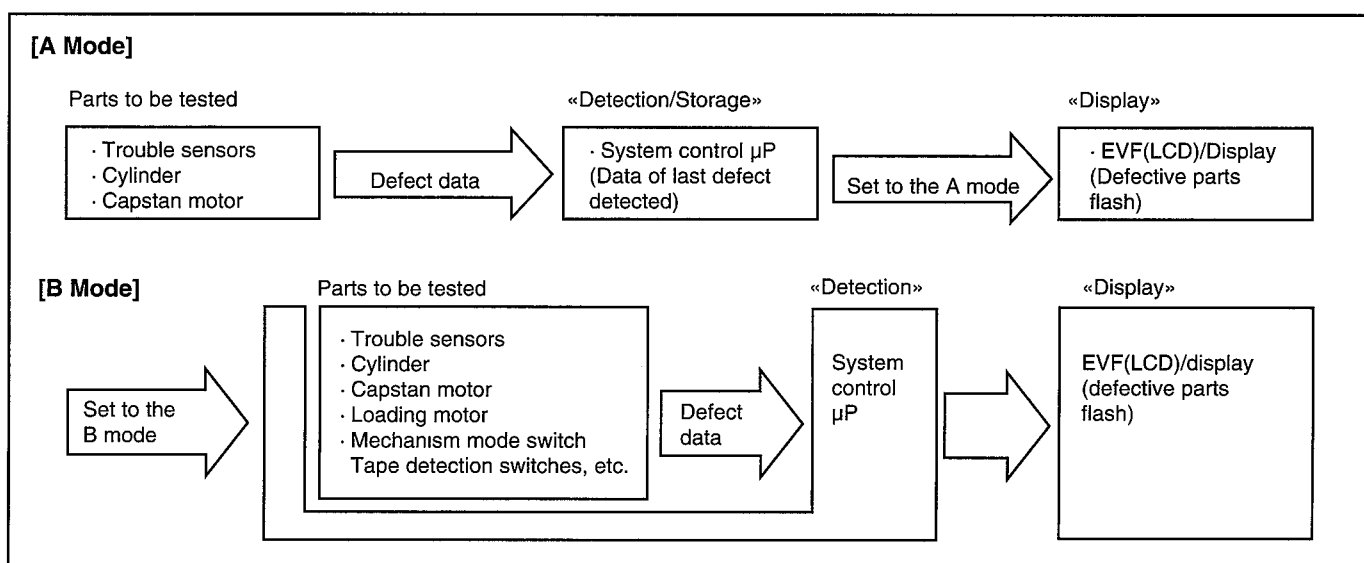


Fig. 1-2 Operation Processes of Self-Diagnostic Functions

1.3 Setting Procedure and Details of Diagnosis

1.3.1 Occasional Defect Self-Diagnostic Function (A Mode)

(1) Setting Procedure

- 1) Connect (attach) a power supply (battery).
- 2) Set the power switch to "CAM" or "VCR".
- 3) Press the DATE button. [Within half a second]
- 4) Press the DATE and REW buttons simultaneously and hold them for 3-5 seconds.

xx,x <xx> 199x/xx/xx

LOD	EJT	UNL
RSS	UST	RST
ESS	REW	EST
CFG	LST	S30
TAB	FWD	STG
ME	HEC	MP

0123456789ABCDEF

H: 0000000002001000

L: 110111180100BD00

0000

xxx/xxx

AUDD140

«Results of self-diagnosis»

- The shaded items flash if they are defective.
- See Table 1-2 for the results of diagnosis.

Cautions:

- Do not press any buttons other than those specified during self-diagnosis; otherwise, it may cause a malfunction.
- Only the shaded items are tested in the A mode.
- Other items are ignored.

[To release]

- Set the power switch to "OFF".
- Press the DATE and REW buttons simultaneously.

(2) Results of Diagnosis

Table 1-2 summarizes the results of diagnosis and the circuits/parts deemed to be defective in the A mode.

Table 1-2 Details of A Mode Self-Diagnosis

Part	Display	Results of diagnosis	Parts/circuits deemed to be defective
Trouble sensors	RSS	The pulse from the supply reel sensor is defective.	Supply reel disk Trouble sensor (reel sensor) IC0901
	RST	The pulse from the take-up reel sensor is defective.	Take-up reel disk Trouble sensor (reel sensor) IC0901
	ESS	The pulse from the supply end sensor is defective.	Trouble sensors (end sensor/end LED) Q0905 IC0901 DC-DC converter circuit (B+ line)
	EST	The pulse from the take-up end sensor is defective.	Trouble sensors (end sensor/end LED) Q0905 IC0901 DC-DC converter circuit (B+ line)
Cylinder	S30	The SW30/25 (CYL. FG) pulse is defective.	Cylinder IC0631 IC0901 DC-DC converter circuit
Capstan	CFG	The CAPST. FG pulse is defective.	Capstan motor IC0651 IC0901 DC-DC converter circuit

1.3.2 Mechanical Block Self-Diagnostic Function (B Mode)

Caution: Complete the A mode before engaging the B mode.

(1) Setting Procedure

- 1) Connect (attach) a power supply (battery).
- 2) Press the EJECT button to set to the eject state.
- 3) Press the "Hi-8 MP" switch on the trouble sensor and the DATE button and hold them, then set the power switch to "CAM" or "VCR" (Hold this state for a few seconds.) [Within 3 seconds].
- 4) Close the cassette lid.

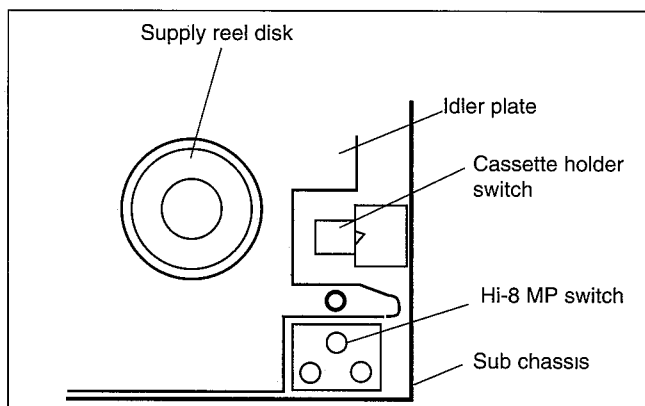
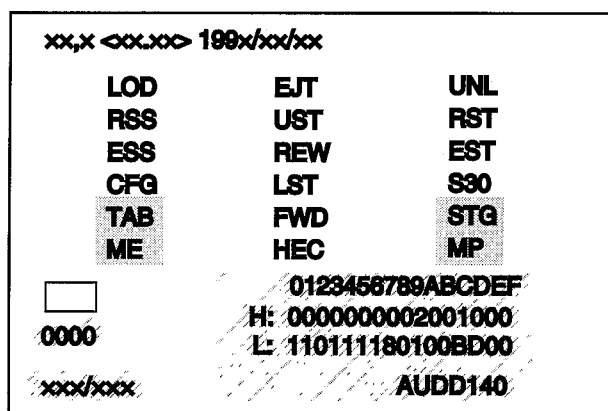


Fig.1-3 Hi-8 MP Switch Position



«Results of self-diagnosis»

- The defective items flash.
- The shaded items are the tape detection switches and cassette holder switch which flash when they are not pressed.
- See Table 1-3 for the results of diagnosis.

Cautions:

- Do not press any buttons other than those specified during self-diagnosis; otherwise, it may cause a malfunction.
- The indications in dotted lines are not covered by the self-diagnostic functions.
- It is normal for the diagnostic procedure to end in the eject state. Do not close the cassette lid thereafter.

[To release]

- Set the power switch to "OFF".

- 5) The procedure ends in the eject state.

Caution: Do not close the cassette lid.

(2) Results of diagnosis

Table 1-3 summarizes the results of diagnosis and the circuits/parts deemed to be defective in the B mode.

Table 1-3 Results of B Mode Self-Diagnosis (1/2)

Part	Display	Results of diagnosis (Detect display conditions)	Parts/circuits deemed to be defective
Loading motor	LOD	The loading motor is defective when running forward. (Does not load within 10 seconds.)	Loading motor Rotation of drive gears in mechanical block faulty. IC0671 IC0901 IC0902 Power supply (5V, B+) lines.
	UNL	The loading motor is defective when running in reverse. (Does not unload within 10 seconds.)	
Trouble sensors	RSS	The pulse from the supply reel sensor is defective. (There is one pulse or less within two seconds.)	Supply reel disk Trouble sensor (reel sensor) Capstan motor IC0901

Table 1-3 Results of B Mode Self-Diagnosis (2/2)

Part	Display	Results of diagnosis (Detect display conditions)	Parts/circuits deemed to be defective
Trouble sensor	RST	The pulse from the take-up reel sensor is defective. (There is one pulse or less within two seconds.)	Take-up reel disk Trouble sensor (reel sensor) Capstan motor IC0901
	ESS	The pulse from the supply end sensor is defective. (No pulse is input for more than 100 ms continuously within two seconds.)	Trouble sensors (end sensor/end LED) Q0905 IC0901 DC-DC converter circuit (B+ line)
	EST	The pulse from the take-up end sensor is defective. (No pulse is input for more than 100 ms continuously within two seconds.)	Trouble sensors (end sensor/end LED) Q0905 IC0901 DC-DC converter circuit (B+ line)
Tape detection switches, etc.	TAB	The erase prevention tab detection switch detects the record inhibit state (OFF).	Caution: These switches flash when they are not pressed. It is abnormal if they flash when pressed. Trouble sensor IC0901
	ME	The ME/MP tape detection switch detects the MP state (OFF).	
	MP	The Hi-8 MP tape detection switch detects the normal MP state (OFF).	
	STG	The cassette holder switch detects the state where the cassette holder is not lowered (OFF).	
Capstan motor	CFG	The CAPST. FG pulse is defective. (150 pulses or less within two seconds.)	Capstan motor IC0651 IC0901 DC-DC converter circuit
Cylinder	S30	The SW30/25 (CYL. FG) pulse is defective. (No pulse is input normally within two seconds.)	Cylinder IC0631 IC0901 DC-DC converter circuit
Mechanism mode switch	UST	The unloading stop position detection signal is defective.	Caution: The positions shown on the left are detected in the order described within 10 seconds. Mechanism mode switch Trouble sensor IC0901 Defective rotation/phase of drive gears in mechanical block. Loading motor. Tape transport components. Guide roller rails DC-DC converter circuit.
	REW	The rewind position detection signal is defective.	
	LST	The loading stop position detection signal is defective.	
	FWD	The play or fast forward position detection signal is defective.	
	HEC	Between the fast forward position and unloading stop position detection signal is defective.	
	EJT	The eject position detection signal is defective.	

2. Demonstration (Demo) Mode

This camera/recorder has a demonstration (demo) mode function.

2.1 Setting the Demo Mode

The camera/recorder can be set to the demo mode following the procedure below:

2.1.1 Setting Conditions

- 1) Connect the AC adapter/charger or a fully charged battery pack.
- 2) Set the power switch to "OFF".
- 3) Do not insert a cassette.

2.1.2 Setting Procedure

Hold the PLAY button down and set the power switch to "CAM".

Note: The camera/recorder also enters the Demo mode in the following status:
If the power switch is set to "CAM" for more than 10 minutes when the date has not been set.

2.2 Exiting the Demo Mode

Perform either of the following to finish (release) the demo mode:

- 1) Disconnect the AC adapter/charger or battery.
- 2) Insert a cassette.
- 3) Set the power switch to "CAM".

2.3 Operation During the Demo Mode

Cautions:

- 1) The following buttons and switches cannot be used in the demo mode:
VCR system:
PLAY, F.FWD, REW, REC START/STOP
Camera system:
EIS, FADE, DIGITAL EFFECT, FOCUS, INST.ZOOM
- 2) If the AC input cable is connected while in the demo mode, the demo mode will be interrupted, and the operation mode when the cable has been connected will be maintained.
- 3) When the power switch is set to "VCR" during the demo mode, the demo mode will be interrupted, and the operation mode when the switch has been changed will be maintained.

2.3.1 Operation sequence

The following table shows the operation sequence in the demo mode and the display in the EVF (LCD) and on the monitor screen.

Caution:

Only functions provided with specific models will be demonstrated. (This section describes models provided with all functions of this series of camera/recorder.)

Order	Demo mode	On-screen display	Picture	Remarks
1		No display	Continues one second.	
2		DIGITAL		Displays characters every half second.
3		DIGITAL DEMONSTRATION	(Blue back)	DEMOSNTRATION is displayed under DIGITAL
4		No display		Continues half a second.
5		DEMO		Lights for a second, and then continues to flash.
6	EIS	EIS indicator and OFF at center	Shakes noticeably in the vertical direction.	For 5 seconds
7		EIS indicator	Shaking lessens.	For 3 seconds
8		EIS indicator and OFF at center	Shakes noticeably in the horizontal direction.	For 3 seconds
9		EIS indicator	Shaking lessens.	For 5 seconds
10	INST.ZOOM (Instant Zoom)	I.ZOOM indicator	INST. ZOOM is ON	For 2 seconds
11		(DEMO flashes)	INST. ZOOM is OFF	For 2 seconds
12		I.ZOOM indicator	INST. ZOOM is ON	For 2 seconds
13		(DEMO flashes)	INST. ZOOM is OFF	For 2 seconds
14	FADE	White fade indicator	White fade in	The fade modes will switch sequences every demo mode cycle.
15			White fade out	
14'		Wipe fade indicator	Wipe fade in	
15'			Wipe fade out	
14'		Mosaic fade indicator	Mosaic fade in	
15'			Mosaic fade out	
14'		Art fade indicator	Art fade in	
15'			Art fade out	

Order	Demo mode	On-screen display	Picture	Remarks
14'	FADE	Zoom fade indicator	Zoom fade in	
15'			Zoom fade out	
14'		Black-and-white (B&W) fade indicator	B/W fade in	
15'			B/W fade out	
16	DIGITAL EFFECT	16 × 9 indicator	16 × 9 picture	For 1.25 seconds
17		NEGPOS indicator	Negative picture	For 1.25 seconds
18		ZM:2 indicator	Magnifies subject up to 240 times.	For 1.25 seconds
19		MIRROR indicator	Half-mirror picture	For 1.25 seconds
20		MOSAIC indicator	Mosaic picture	For 1.25 seconds
21		ART indicator	Art picture	For 1.25 seconds
22	Stored Title		The registered titles appear in sequence. [The number of titles is different for each model (destination).] (Magenta back)	For 0.3 to 1 second for each
23	Normal		Normal picture	For 3 seconds, and then goes back to step 1.
Note: Steps 1-23 will be repeated during the demo mode.				

MECHANICAL ADJUSTMENT

1. ADJUSTMENT POINTS ON THE MECHANISM

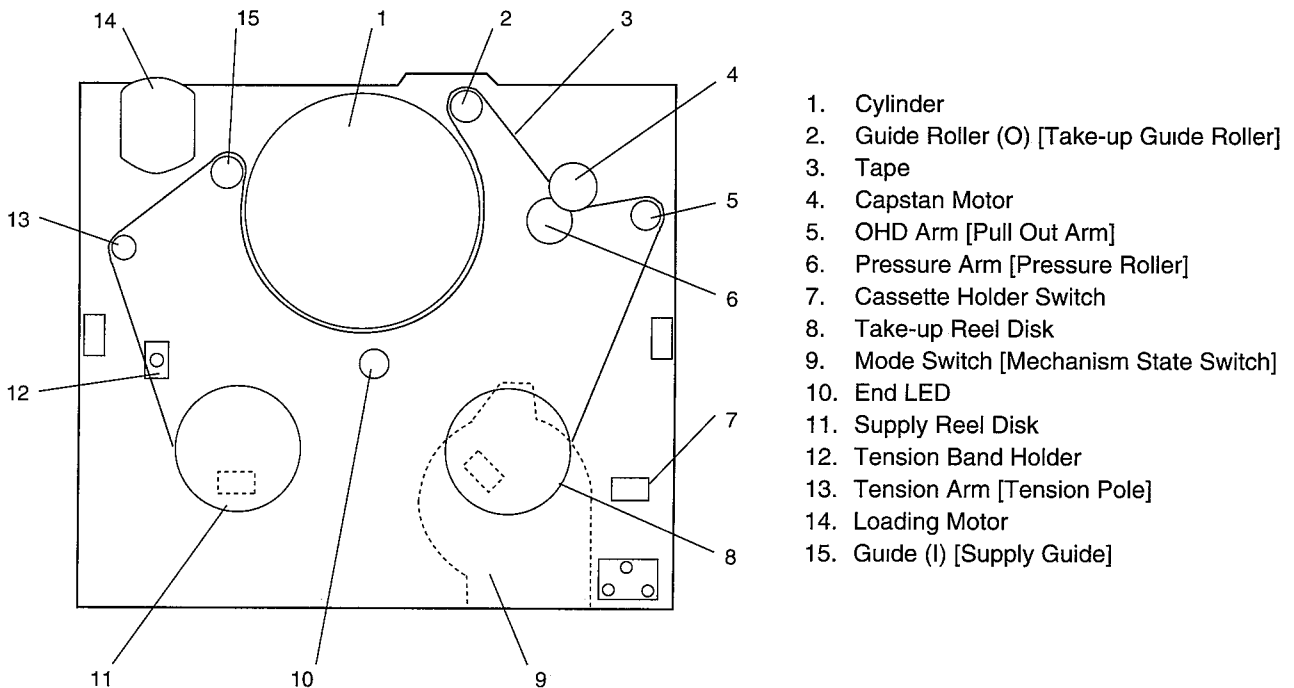


Fig. 1-1

2. BEFORE STARTING ADJUSTMENT

- (1) See "CHAPTER 1 DISASSEMBLY" for dismantling and reassembling the mechanism, and matching phases of gears in assembly.
- (2) The following describes the procedure for setting the mechanism to the playback mode without inserting a cassette (a circuit board that mounts mechanism drive circuits must be connected):
The playback mode cannot be kept by any of the following procedures because reel disks do not turn, etc.:
 - 1) Set the mechanism to the unloading stop or eject mode.
 - 2) Shade light from the end LEDs.
 - 3) Lower the cassette holder.
 - 4) Press the playback button.
- (3) The following shows the procedure for loading and unloading the unassembled mechanism:
 - 1) Supply 4V DC to the terminals of loading motor:
Red lead wire (+), brown lead wire (-): Loading
Brown lead wire (+), red lead wire (-): Unloading

3. TAPE TRANSPORT SYSTEM CHECK/ADJUSTMENT

The tape transport system is a generic term for the path from the supply reel disk to the take-up reel disk via cylinder.

- Notes:**
1. The tape transport system is adjusted before shipment from the factory, so perform adjustments only when components of the transport system are replaced or adjustments of the transport system have drifted.
 2. The tape transport components, especially the components which come into direct contact with the tape, should be kept clean without damage, dust or oil, etc. adhering to the contact surfaces.

3.1 Tension Arm Position and Tension Torque Check (Fig. 3-1)

- Notes:** 1. This item is an operation check for periodic maintenance. Check the following, and only when adjustment is necessary, proceed with adjustment in next item.
2. Adjustment is unconditionally necessary after replacing the tension arm, tension band or tension arm spring. Proceed with adjustment in next item.

■ Test Equipment/Jig

Cassette Torque Meter

(NTSC: SRK-8T-112, PAL: SRK-8T-212)

■ Procedure

- (1) Make sure that the tension arm spring is hooked onto hook (b) on the subchassis. (Fig. 3-1)
- (2) Set the camcorder to the playback mode without inserting a cassette. (See the previous page.)

[Check item 1]

- (3) After setting to the rewind mode, set the camcorder to the playback mode. Make sure that the tension arm moves in the direction of arrow (B).

[Check item 2]

- (4) Insert the cassette torque meter, set to the playback mode, and make sure that the value on the supply side is 8-10 gf.cm.
- (5) Proceed with adjustment in next item only when the check items are not satisfied.

3.2 Tension Arm Position and Tension Torque Adjustment (Fig. 3-1, 3-2)

- Notes:** 1. Be sure to perform this adjustment after replacing the tension arm, tension band or tension arm spring. When the tension arm or tension spring must be replaced, also replace the tension band.
2. Be sure to replace the tension band before performing this adjustment.

■ Test Equipment/Jig

Cassette Torque Meter

(NTSC: SRK-8T-112, PAL: SRK-8T-212)

■ Adjustment Point

Band Bracket (B)

■ Procedure

- (1) Attach all parts. Loosen screw (E).
- (2) Hook the tension arm spring onto hook (b) on the subchassis. (Fig. 3-1)
- (3) Set the camcorder to the playback mode without inserting a cassette. (See the previous page.)
- (4) Make sure that the tension arm fully moves in the direction of arrow (A).
- (5) Check the position relationship between the tension arm and the square hole in the loading motor holder (initial position). [Fig. 3-2 (initial position)]

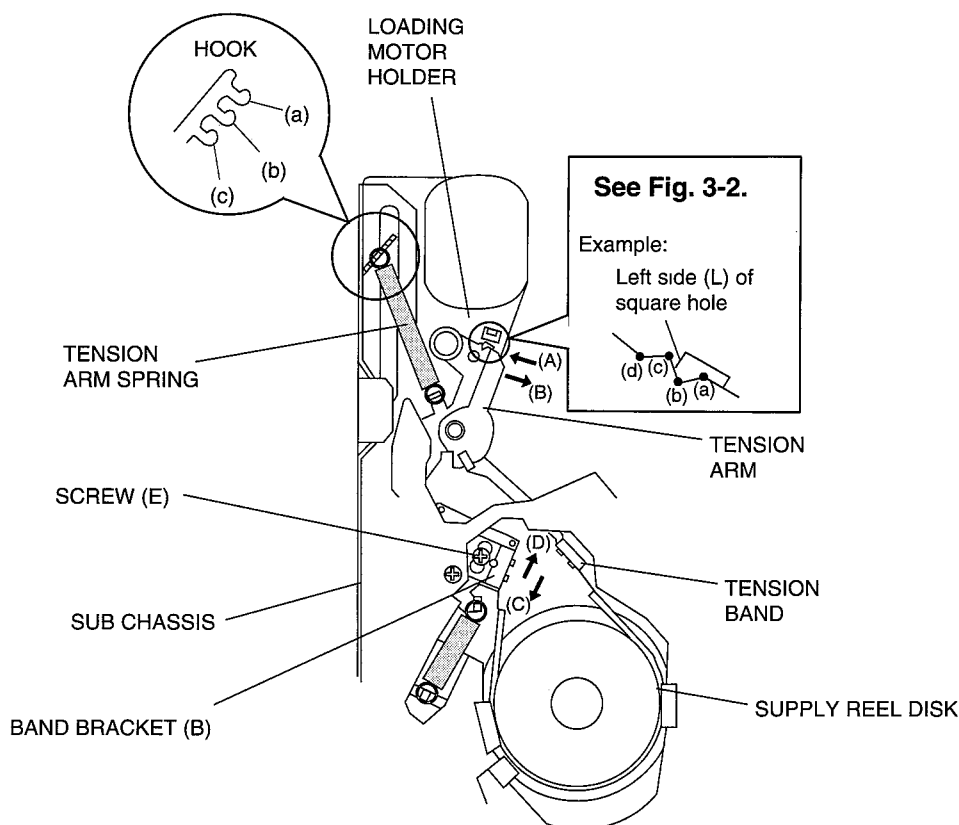


Fig. 3-1

- (6) Adjust the position of band bracket B according to the initial position so that the relationship between the tension arm and the square hole in the loading motor holder is as shown in Fig. 3-2 (adjustment position).
- (7) Tighten screw (E) to temporarily fix band bracket B so that it does not move.

[Check item 1]

- (8) After setting to the rewind mode, set the camcorder to the playback mode. Make sure that the tension arm moves in the direction of arrow (B).

[Check item 2]

- (9) Insert the cassette torque meter, set to the playback mode, and make sure that the value on the supply side is 8-10 gf.cm.
- (10) If both two check items are satisfied, remove the cassette torque meter, and additionally tighten screw (E), taking care that band bracket B does not move, to complete adjustment.

Note: If both or either check item is not satisfied, proceed with the following adjustment (countermeasures):

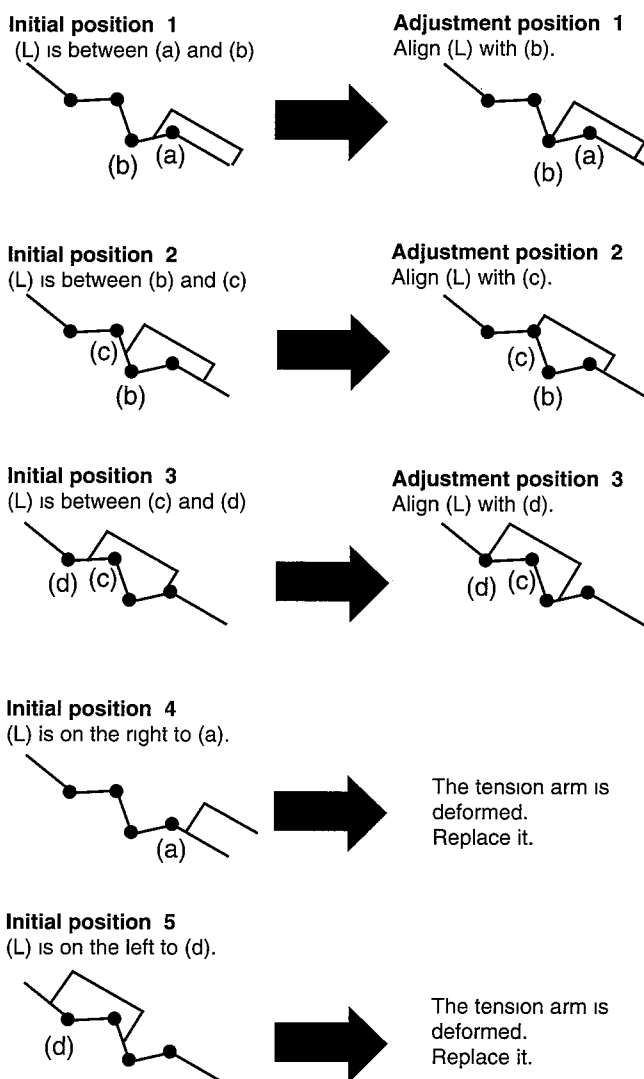


Fig. 3-2

When only check item 1 is faulty:

Fine adjust the position of band bracket B in the direction of arrow (D). Make sure of check items 1 and 2 again.

When only check item 2 is faulty:

If the torque is higher than the specified value, fine adjust the position of band bracket B in the direction of arrow (C), and then make sure of check items 1 and 2 again.

When both check items 1 and 2 are faulty:

If the torque is lower than the specified value, fine adjust the position of band bracket B in the direction of arrow (D), and then make sure of check items 1 and 2 again.

- Notes:**
1. If both check items 1 and 2 are not satisfied after the above countermeasures, check the tension band and tension arm spring, and if necessary, replace either or both.
 2. Do not change the hooking position of the tension arm spring.

3.3 Coarse Adjustment of Guide Roller (O) and Guide (I) Heights (Fig. 3-3)

Note: Be sure to perform this adjustment after replacing the O guide roller or I guide.

■ **Test Equipment/Jig**

Special Driver

■ **Adjustment Point**

Top of the Guide (I)

Top of the Guide Roller (O)

■ **Procedure**

- (1) Screw in the guide roller (O) or guide (I) into each base, make surface (A) of guide roller (guide) in contact with surface (B) of base, and then loosen the guide roller (O) or guide (I) by approx. 360°.

Note: After this adjustment is completed, be sure to perform "3.4 Adjustment of Guide Roller (O) and Guide (I) Heights (Adjustment After Replacing Cylinder)".

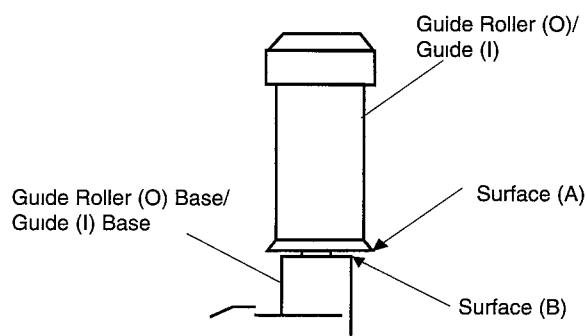


Fig. 3-3

3.4 Guide Roller (O) and Guide (I) Heights Adjustment (Adjustment After Replacing Cylinder) (Fig. 3-4 - 3-6)

- Notes:**
1. Be sure to perform this adjustment after replacing the guide roller (O), guide (I) or cylinder base. After replacing the guide roller (O) or guide (I), perform the coarse adjustment in the previous item in advance.
 2. When the cylinder is replaced, the electric circuit adjustment is also necessary. See the service manual of this model and also perform electrical circuit adjustment.
 3. Before starting adjustment, modify the ATF-R jig, referring to Fig. 3-6.

■ Test Equipment/Jig

Alignment Tape
ATF-R Jig
Oscilloscope
Special Driver
DVM

■ Test Point

TP1 (SW30/25) on ATF-R jig
TP2 (GND) on ATF-R jig
TP3 (FM OUT) on ATF-R jig

■ Adjustment Point

Top of the Guide (I)
Top of the Guide Roller (O)

■ Procedure

- (1) Insert the alignment tape which has been completely rewound, and set the camcorder to the test mode by the following procedure.

[To set to the test mode]

- 1) Remove the power supply (adapter, battery, etc.).
- 2) Set the power switch to the VCR position.
- 3) Connect the ATF-R jig to the test terminal (test connector), supply power again with the playback button held down.

- Notes:**
1. If the mechanism operates (enters the playback mode) when power is supplied, it indicates that the camcorder has not been set to the test mode. Start from item 1) over.
 2. The test mode is released when the power supply is removed.

- (2) Connect an oscilloscope to TP3 and press the playback button.
- (3) Synchronize the oscilloscope with TP1 (SW30/25).
- (4) Set the oscilloscope probe to (+).

Guide (I) (Fig. 3-4)

- (5) Holding down SW2 on the ATF-R jig, perform the following steps.
- (6) Adjust the height of guide (I) so that the waveform is flat.

- (7) Adjust the voltage control on the oscilloscope so that amplitude (a) of the waveform is set to 4 graduations.
- (8) Set SW1 on the ATF-R jig to ON.
- (9) Turn RT1 on the ATF-R jig, and make sure that the waveform changes while it is flat. If this cannot be confirmed, fine adjust the height of guide (I), to satisfy the condition.

Guide Roller (O) (Fig. 3-5)

- (10) Set SW1 on the ATF-R jig to OFF.
- (11) Set the oscilloscope probe to (-).
- (12) Adjust the voltage control on the oscilloscope so that amplitude (b) of the waveform is set to 4 graduations.
- (13) Turn RT1 on the ATF-R jig counterclockwise so that the voltage at section (C) (pin 2) on the ATF-R jig is 1.1 ± 0.1 V. Make sure that amplitude (b) of the waveform is set to 3 graduations.
- (14) Adjust the height of guide roller (O) so that minimum amplitude (c) of the waveform is set to 2 ± 0.3 graduations.
- (15) After adjusting the heights of guide (I) and guide roller (O), reinsert the alignment tape, and make sure that the contents of this adjustment are satisfied.

Note: After adjustment is completed, perform the following:

- 1) Remove the ATF-R jig from the test terminal (test connector), and release its modification.
- 2) Remove the power supply to release the test mode.
- 3) Make sure of adjustment items in step (7) and after of "3.5 OHD Arm Height Adjustment".

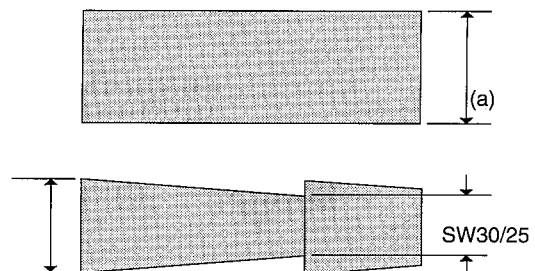


Fig.3-4

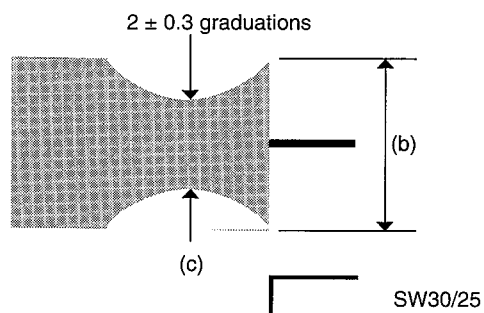
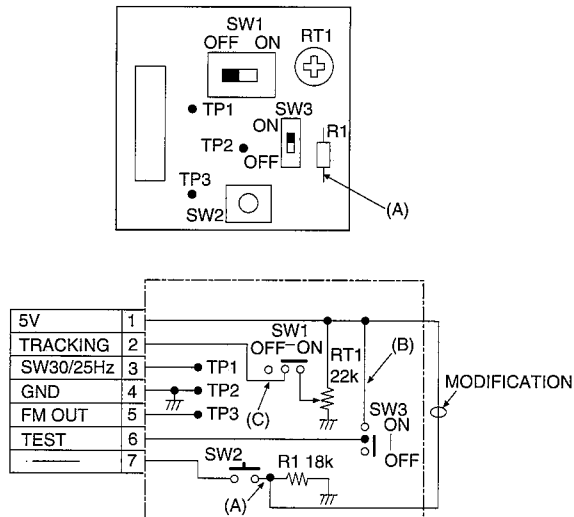


Fig.3-5



Modification: Connect terminal (A) of the resistor and pin 1 (5V).

Fig. 3-6

3.5 OHD Arm Height Adjustment (Fig. 3-7)

- Notes:**
1. Be sure to perform this adjustment after reinstalling the OHD arm.
 2. After the heights of O guide roller/I guide are adjusted or the capstan motor is replaced, make sure of adjustment items in step (7) and after. If the contents are not satisfied, perform this adjustment from step (1).
 3. This adjustment minimizes minute twisting of tape that occurs between the OHD arm and capstan motor due to the structure of mechanism.
 4. It is not necessary to modify the ATF-R jig.

■ Test Equipment/Jig

Alignments Tape
Blank Tape
ATF-R Jig (SW1: OFF, SW3: OFF)
Special Drive
Oscilloscope
Color Monitor TV

■ Test Point

Video Out
TP1 (SW30/25) on ATF-R jig
TP2 (GND) on ATF-R jig
TP3 (FM OUT) on ATF-R jig

■ State of VCR

Connect the color monitor TV to video out.
Connect the ATF-R jig to the test terminal on the circuit board.

■ Adjustment Point

Top of the OHD Arm

■ Procedure

- (1) Turn power on.
- (2) Load a blank tape that has been completely rewound.
- (3) Set to the forward search mode.

- (4) Carefully observe the tape between the OHD arm and capstan in a bright place, and make sure that minute twisting occurs on the tape. The color of tape (reflected image) at the twisted portion will appear different from the other portions. Also, twisting will look different on the left/right and up/down depending on the direction of incident light, as shown in Fig. 3-5.
- (5) Adjust the height of OHD arm so that the widest portion where color of tape looks different is less than 0.5 mm.
- (6) Make sure that no curling of tape occurs at either the top or the bottom flange of OHD arm. (However, even if some curling occurs at either flange, it can be judged in the allowable range if there is no scratch on the tape and there is no gap between the other flange and tape edge.)
- (7) Load the blank tape that has been rewound again. Set to the forward and reverse search modes, and make sure that step (6) is satisfied.
- (8) Connect an oscilloscope to TP3.
- (9) Synchronize the oscilloscope with TP1.
- (10) Set the oscilloscope to (+) slope.
- (11) Play back the alignment tape. Set to forward search and reverse search modes, and make sure that the FM waveform does not collapse. Also, make sure that noise bars do not fluctuate up and down on the monitor screen.
- (12) If step (11) is not satisfied, it indicates that the OHD arm is abnormal (deformed). Replace the OHD arm.

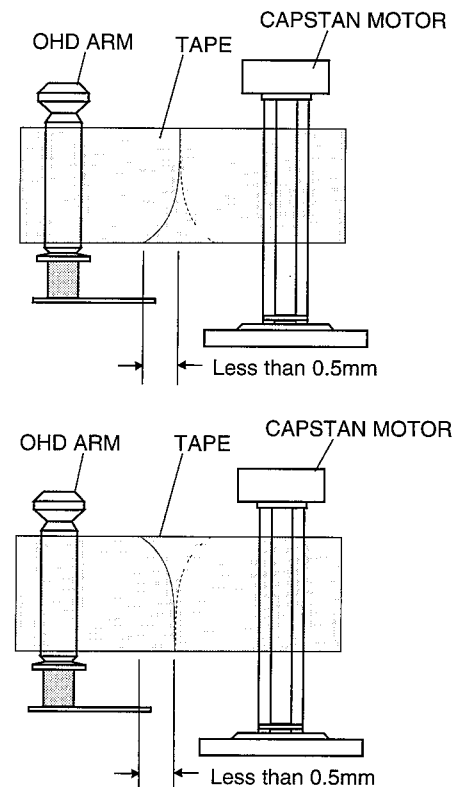


Fig. 3-7

4. CHECK THE TORQUE

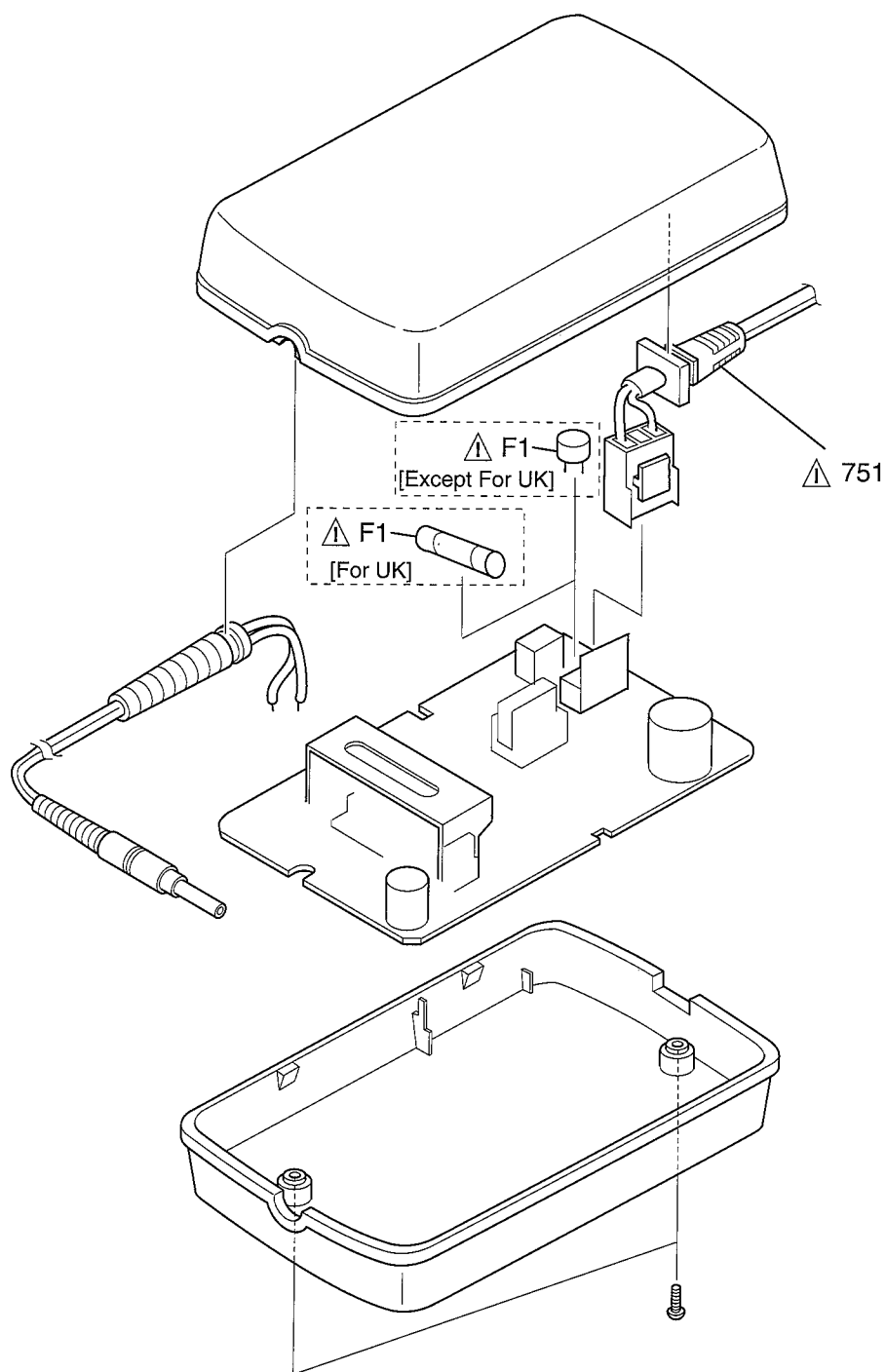
There are two types of cassette torque meter.

Choose the applicable one for the measurement to be performed.

Item	VCR Mode	Measured Reel Disk	Torque Value	Torque Cassette Used
Take-up Torque	Playback	Take-up	10 ± 3 g-cm	NTSC: SRK-8T-112 or 132 PAL: SRK-8T-212 or 232
Rewind Torque	Reverse Search	Supply	31 ± 6 g-cm	NTSC: SRK-8T-132 PAL: SRK-8T-232
Take-up Brake Torque	Reverse Search to Stop	Take-up	10g-cm or more	NTSC: SRK-8T-112 or 132 PAL: SRK-8T-212 or 232
Slack Removal Torque	Unloading	Supply	25-50 g-cm	NTSC: SRK-8T-132 PAL: SRK-8T-232

EXPLODED VIEW & REPLACEMENT PARTS LIST

SYMBOL	NO	P-NO	DESCRIPTION
⚠	751	EV10681	CORD, AC [Except for UK, AU]
⚠	751	EV10701	CORD, AC [For UK]
⚠	751	EV10711	CORD, AC [For AU]
⚠	F1	FN10261R	FUSE [Except for UK]
⚠	F1	5722801	FUSE [For UK]



HITACHI

VM-E553LE/E555LE
VM-E558LE/E658LE
VM-H755LE/H855LE
VM-H955LE VM-ACE5E

TK No.6906E

AV Consumer Products Division, Tokai

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